

# Psychological Abstracts

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# PSYCHOLOGICAL ABSTRACTS

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## GENERAL

1646. **Bousfield, P., & Bousfield, R. W.** *The mind and its mechanism.* New York: Dutton, 1927. Pp. v + 244. \$4.00.—The point of departure is the proposition that there is some immaterial, psychical thing, which performs certain functions that the material mechanism of the brain is powerless to perform. The principal function of this "thing," this "psychic organ," is to synthesize the impressions received by the material brain. It appears, however, that, in this proposition, the authors do not intend positing a metaphysical dualism. There is no gap between the psychic organ and the material brain: "psychic" and "immaterial" are terms of convenience used to designate a hypothetical structure composed of "psychons." "... the mass of a psychon is of the second order of small quantities compared with the mass of an electron—so small as to be inappreciable by the methods by which we appreciate the mass of the material atom." In all living organisms, there is a psychic organ built of coherent psychons, a mass which interpenetrates the material body as a whole, and is capable of forming complex and modifiable psychonic structures. Between these structures and the material body there is a causal relation running in both directions. Support is extended to the Lamarekian doctrine of evolution: the proposition is made that habits set up in the organism affect the psychic structure of the germ plasm, and thus make possible the inheritance of acquired characters. Among topics afforded special treatment are the following: ideo-motor action, recapitulation, emotion, the "unconscious mind," the "censor," hypnosis, and telepathy.—*J. D. Bryden (Clark).*

1647. **Bridgman, P. W.** *The logic of modern physics.* New York: Macmillan, 1927. Pp. xiv + 228. \$2.50.—The book is a criticism of the concepts that form the foundations of physics: space, time, force, mass, energy, etc. The writer believes that such concepts as force, energy, and causation should be examined before being carried from the realm of ordinary mechanics to the properties of radiation and the structure of the atom. The author points out that the concepts do not exist as such in nature; we mean by any concept nothing more than a set of operations, the concept being synonymous with the corresponding set of operations, i.e., the concept of length involves as much and nothing more than the set of operations by which length is determined. He states his problem as follows: "Our problem is the double one of understanding what we are trying to do and what our ideals should be in physics, and of understanding the nature of the structure of physics as it now exists. These two ends are together furthered by an analysis of the fundamental concepts of physics; an understanding of the concepts we now have discloses the present structure of physics and a realization of what the concepts should be involves the ideals of physics. This essay will be largely concerned with the fundamental concepts; it will appear that almost all the concepts can profit from reëxamination. . . . We shall accept as significant our common sense judgment that there is a world external to us, and shall limit as far as possible our inquiry to the behavior and interpretation of this 'external' world. We shall rule out inquiries into our states of consciousness as such. In spite, however, of the best intentions, we shall not be able to

eliminate completely considerations savoring of the metaphysical, because it is evident that the nature of our thinking mechanism essentially colors any picture that we can form of nature." The book contains the following chapters: broad points of view; other general considerations; detailed considerations of various concepts; special views of nature.—*J. R. Liggett* (Clark).

1648. **Cole, L. W. Factors of human psychology.** Boulder, Colorado: Univ. Exten. Div., Univ. of Col., 1926. Pp. 362. \$2.40.—The book is intended as a textbook for introductory courses in general psychology. The author states in his introduction: "It has seemed best to limit the discussion to human psychology and to those facts which seem to be most firmly established. No attempt has been made to give an account of animal psychology nor of applied psychology except as facts from that realm may illustrate psychological principles. The endeavor has been made to lay a foundation for business, industrial, and educational psychology in the facts selected for discussion." The book is written from no single viewpoint, but rather the writer has endeavored to present the facts of structural, functional, and behavior psychology that were regarded as of sufficient importance. The material is presented under the following chapter headings: introduction; the nervous system; instinct; habit; sensation; perception; perception of space; perception of time; imagery and thought; imagination; recognition and memory; association; discrimination and conception; reasoning; intelligence; attention; emotion; will; mesmerism, hypnotism, suggestion, and psychoanalysis; psychic traits of the sexes.—*J. R. Liggett* (Clark).

1649. **Coleman, L. R., & Commins, S. Psychology: a simplification.** New York: Boni & Liveright, 1927. Pp. 320. \$3.00.—An unpedantic description of the psychological field in which a semi-popular historical sketch of what has been and is being done in psychology is intercalated with critical comments by the authors. Probably intended primarily for the layman. Part I deals with the individual mind in its normal and abnormal phases, both in animal and man. Part II takes up topics suggested by men's relations to each other: criminal behavior, religion, social and applied psychology. The various schools of psychology, past and present, are discussed. Though the authors maintain a tone of detachment throughout the larger part of the book, it is obvious that they feel strongly on some subjects such as behaviorism, which they are inclined to oppose, and Freudianism, which they are inclined to accept. There is a selected bibliography with a concise, humorous description of the contents of each book included.—*M. Goodrie* (Clark).

1650. **Fischer, J. Love and morality.** New York: Knopf, 1927. Pp. x + 291. \$4.00.—An attempt to explain human thought by bio-chemical means. The author is not "aiming at a decisive solution, but putting forward a method of work, an attempt to link together most of the theories which have revolutionized our knowledge during recent years." Part 1 gives a theoretical description of the bio-chemical formation of human thought. The flaws in the existing methods of studying thought are first criticized, after which the main thesis is stated. The anatomy, chemistry, and physiology of the brain are examined with a view to finding laws governing the production of thought. The explanation of the manner in which the cerebral machine works is found in the understanding of "cerebral lipoids"—cholesterin, lechitins and cerebrins. These cause certain variations in the blood which in turn have an electro-chemical reaction on the nerve cells conditioning thought. The influence of toxins on nerve tissue is shown. The influences of the internal environment—colloidal solutions—are regarded as but a continuation of the outer influences of rhythm and periodicity. In Part 2 the sex impulse is studied as an example of an organic function which, by its periodicity and the definite physiological reactions which it produces, can give data for understanding the genesis of the thought process complementary



with it. Part 3 gives the author's idea of the formation of this thought process. This leads to a conception of sexual morality different from that commonly accepted. In Part 4 a discussion is given of social morality, which "affects certain persons to the detriment of the majority of mankind" as it differs from biological morality, which is based upon physiological factors. One chapter is devoted to suggestions as to modifications that might advantageously be made upon a biological-morality basis. Sexual perversions are conceived of as due to bio-chemical causes in the organism and as therefore being outside the sphere of any imposed religious or social morality.—*M. Goodrie* (Clark).

1651. **Heymans, G.** Über "verstehende Psychologie." (Concerning "comprehending psychology.") *Zsch. f. Psychol.*, 1927, 102.—In this article there is an attempt to show that "psychological comprehension," which has, of late, often been opposed to interpretive psychology, is nothing but the application of the experimental method. The psychologist reproduces in himself the motives and general manner of reacting which he assumes in his subject, and studies his own reaction in order to determine whether, if he were the subject and found himself in a similar situation, he would act in the same way as the subject. The relations between "comprehending psychology" and interpretive psychology are the same, then, as those between experimental and interpretive physics; the first constitutes an auxiliary method within the second, and is of great value, since it formulates hypotheses and assists in their verification.—*G. Heymans* (Groningen).

1652. **Hunter, W. S.** The symbolic process. *Psychol. Rev.*, 1924, 31, 478-497.—The present paper continues the argument of a previous article on the problem of consciousness. Professor Hunter considers the symbolic character of language behavior from the standpoint of the substitution of stimuli and responses. On the level of the conditioned reflex a substitute response (it is said) may be acquired without involving the subjectivist's consciousness. The mechanism of substitution is illustrated by line drawings. Watson's doctrine of thinking is discussed. Hunter believes that language responses differentiate thinking from running a maze. The problems of foresight and purpose are considered with quotations from Warren and McDougall.—*P. T. Young* (Illinois).

1653. **Hunter, W. S.** [Ed.] **Psychological Index (No. 33)**. Princeton: Psychological Review Co., 1927. Pp. 370. \$2.00.—Bibliography of psychological literature for the year 1926. 5507 titles, an increase of 31% over No. 32. The Russian work (about 450 titles), which is a new addition to the Index, is distributed largely in the sections devoted to nerve physiology, reflexes, etc., psychiatry, and social problems, particularly child study. The following is a percentage distribution, among the main sections, of the titles of Nos. 32 and 33:

*Sect.	I	II	III	IV	V	VI	VII	VIII	IX	X	XI
32	10	4	11	2	9	2	17	7	17	17	4
33	10	4	9	1	9	2	18	8	14	21	4

\* I = general; II = nervous system; III = sensation and perception; IV = feeling and emotion; V = motor phenomena; VI = attention, memory and thought; VII = social phenomena; VIII = special mental conditions; IX = nervous and mental disorders; X = mental development in man; XI = plant and animal behavior. Several new journals are represented, especially from Germany, but no list of journals is printed.—*R. R. Willoughby* (Clark).

1654. **Langfeld, H. S.** Consciousness and motor response. *Psychol. Rev.*, 1927, 34, 1-9.—Purely mentalistic concepts are found to be unsatisfactory in explaining mind even though invested with a functional character. Experimental evidence indicates the rôle which motor response plays in an explanation of mind. Wherever there is the phenomenon of consciousness, there we shall

find both afferent impulses and motor impulses to the striped muscles. Evidence is presented in support of the motor theory. Phenomena of aesthetic experience, dynamogeny, attention, thinking, and meaning are explained by this theory.—*H. Helson* (Kansas).

1655. **Miner, J. B.** *The significance of qualitative difference for psychology.* *Psychol. Rev.*, 1927, **34**, 10-27.—Recognition of qualitative differences is most significant when we consider different types of explanation in psychology. Behavior concepts alone, though giving a continuum in a single series, are inadequate to explain the appearance of qualitatively different phenomena which are not in the behavior continuum. Conscious facts are different from behavior facts. Genetic sequences disclose new qualitative facts. Purposive striving and the *Gestalt* may be instances of genetic sequence in which a new characteristic appears during the sequence or with the end-result. Genetic sequence requires some other relationship than cause.—*H. Helson* (Kansas).

1656. **Piéron, H.** *Thought and the brain.* (Trans. by C. K. Ogden.) New York: Harcourt, Brace, 1927. Pp. xvi + 262. \$4.00.—The author presents a comprehensive survey of his subject, utilizing an extensive literature and his own observations during the World War. Although a subjective terminology is not completely avoided, the treatment is essentially objective, behavioristic, both in material and in point of view. "Little by little we succeed in freeing ourselves from the congealed concepts of traditional psychology. . . ." "Today we generally refuse to let ourselves be hypnotized by the insoluble problem of consciousness, and limit ourselves to the objective standpoint of the analysis of communicable, registrable facts, by which our social heritage may be enriched. We are engaged in constructing a science of psychology, dynamic in spirit, which forms an integral part of the biological sciences." The book is organized in four parts: Part I, general, including the problem of localization; part II, the receptive and incito-motor functions; part III, verbal function and thought; and part IV, the affective regulation of mental life, its rôle and mechanism. On the problem of localization, the author takes an intermediate ground. He emphasizes the fact that "there are specially important points of junction, 'synapses' which cannot be broken with impunity," although the old theories of faculty localization are unsound. Examples of such important points of junction are found in the speech centers through which great association paths pass. There is no bibliography, but extensive footnote references are given.—*W. S. Hunter* (Clark).

1657. **Sevringhaus, E. L.** *A simple bicycle ergometer.* *Amer. J. Physiol.*, 1927, **80**, 347-354.—Description of a bicycle ergometer with mechanical (Prony) brakes, of the method of its calibration, and of preliminary results obtained by its use.—*M. J. Zigler* (Wellesley).

1658. **Witmer, L.** *Psychological diagnosis and the psychonomic orientation of analytic science.* *Psychol. Clin.*, 1925, **16**, 1-18.—General intelligence is called general competency. "A definition of human competency will involve a pre-analytic interpretation of personal and group behavior which has been made to conform to the post-analytic generalizations of numerical and qualitative description." "The psychonomic orientation . . . is the orientation of thought and behavior implicit in the pre-analytic generalizations of all analytic science." This is based on six categories, viz., determination, motivation, origination, operation, differentiation, and organization. The paper also presents a profound viewpoint regarding the future of the psychological clinic.—*S. S. Cohen* (Columbia).

[See also abstracts 1681, 1685, 1785, 1866.]

## SENSATION AND PERCEPTION

1659. Dimmick, F. L. Discussion: the series of blacks, grays, and whites. *Psychol. Rev.*, 1925, 32, 334-336.—A criticism of Neifeld's article, based upon G. E. Müller's doctrine of cortical gray.—P. T. Young (Illinois).

1660. Gault, R. H. On the upper limit of vibrational frequency that can be recognized by touch. *Science*, 1927, 65, 403-404.—Vibration rates as high as 3000 per second can be perceived by means of the skin or the finger nail.—G. J. Rich (Institute for Juvenile Research).

1661. Gertz, H. Quelques relations nouvelles concernant les images optiques produites par refraction oblique. (Some new relations concerning the optical images produced by oblique refraction.) *Acta Ophth.*, 1927, 3, 303-318.—By mathematical physical argumentation the writer proves, through the building up of workable formulas, that the two groups of images, the tangential and the sagittal, which are formed in the case of oblique refraction, may be determined by a common formula, derived from all possible corresponding single factors of the two systems.—M. L. Reymert (Wittenberg).

1662. Gertz, H. Remarque sur les conditions d'aplanetisme. (Remarks on the conditions of aplanetism.) *Acta Ophth.*, 1927, 4, 164-177.—An elaborate mathematical treatment of aplanetism in physiological optics.—M. L. Reymert (Wittenberg).

1663. Holm, E. The pathogenesis of reading myopia. *Acta Ophth.*, 1926, 3, 234-244.—Fine work, especially reading, has been frequently mentioned as an important factor in the causation of at least all milder cases of myopia. Holm advances his own theory as an explanation of this fact, finding it natural to seek the influence of reading in an anomaly of growth due to the effort of accommodation, since myopia arises and progresses only in youth, being then especially associated with the growing years; and since myopia is usually fairly proportional to the reading distance. Refractive changes then are very important. The growth of the eye from earliest infancy, the bearing of the development of the crystalline lens, sclerotic coat, the ciliary adjustment, tonus, etc., are sketched. Much reading and fine work tends to interfere with the regulation of growth, as the increased innervation of the ciliary muscle required during long periods of reading acts as a growth promoting factor in the same way as the augmented innervation when the refraction of the eye during growth is altered in the hypermetropic direction. "Thus, the possibility of a change to myopic refraction will come to numerous individuals, a possibility which, however, seems to depend upon a definite difference in hereditary predisposition, since it does not seem to occur with persons in whose families myopia has not appeared although its members have been much addicted to reading. At present we shall have to confine ourselves to conceived excessive myopia as a hereditary disease, predisposition being the only known etiological factor, in regard to whose nature and mode of action we are so absolutely ignorant that it would be futile to say anything definite as to the pathogenesis of this anomaly."—M. L. Reymert (Wittenberg).

1664. Holm, E. Myopia from the point of view of heredity. *Acta Ophth.*, 1927, 3, 335-348.—A critical full discussion of recent investigations and literature leads the writer to the following conclusions: The character of myopia, as an affection which, within a wide range of variation, occurs in all possible degrees, whether it be due to reading or not, and its frequency, which decreases regularly in proportion as the degrees increase, tend to render the explanation probable, that it is due to multiple specific factors operating in the same direction, by a dominant mode of descent. If a whole series of such factors exists, it will be readily understood that a single one of them may be able to produce myopia under external conditions which are favorable to its development, while,

if a greater number be present, myopia may be the outcome irrespective of external influences. Thus, if an individual inherits some of these factors, he is predisposed to developing reading-myopia; if he inherits several, he may develop myopia even without reading. The view that the inheritance of myopia is due to a varying number of dominant specific factors, seems to be the most natural.—*M. L. Reymert* (Wittenberg).

1665. **Kingsbury, B. A.** A direct comparison of the loudness of pure tones. *Phys. Rev.*, 1927, 29, 588-600.—“The loudness of eleven pure tones was studied by adjusting the voltage applied to a telephone receiver to make these tones as loud as certain fixed levels of a 700 cycle tone. The average results of 22 observers, 11 men and 11 women, were arranged as contour lines of equal loudness through the normal auditory sensation area in terms of r. m. s. pressure in ear canal as a function of frequency. Frequencies from 60 to 4000 cycles were used and intensities from threshold of audibility to 90 T. U. above the 700 cycle threshold. It was found that if the amplitudes of pure tones are increased in equal ratios the loudness of low frequency tones increases much more rapidly than that of high frequency tones. For frequencies above 700 cycles the rate is nearly uniform.”—*E. G. Wever* (California).

1666. **Magitot, —, & Bailliant, —.** Le système nerveux organique de l'oeil. (The organic nervous system of the eye.) *Ann. d'ocul.*, 1926, 163, 927-941; 1927, 164, 81-106.—The involuntary innervation of the orbit and its accessories; physiological conditions and changes in their dependence upon the sympathetic system: a general review.—*E. G. Wever* (California).

1667. **Metfessel, M.** Sonance as a form of tonal fusion. *Psychol. Rev.*, 1926, 33, 459-466.—The current view of timbre as a simultaneous fusion of pitches or as dependent upon wave-form has been tested and found satisfactory, but recent experiments would also authorize a structural distinction from a successive tonal fusion, or *sonance*, found to be present in tonal perceptions. Examples of sonance are found in the voice vibrato, where there is present, over and above the various partials, a recurrent increase and decrease of pitch and intensity of all partials at a rate of about seven times per second, with a fundamental pitch extent of one half a tone on the average. Sound waves were photographed and successive changes graphed. Synthetic tones were produced by means of sirens and observers were asked to report on their timbre; although the timbre as defined by several authorities was the same for the tones, all decided that what they heard and named as timbre was different in each case. Trained observers are thus able to distinguish between timbre (simultaneous fusion) and sonance (successive fusion). Successive tonal syntheses may contain (1) certain constants in perception such as vowel quality or personal voice traits, and (2) variables, exemplified by the vibrato and other periodicities in singing, and intonation types in speech.—*H. Helson* (Kansas).

1668. **Michaels, G. M.** Black: a non-light sensation. *Psychol. Rev.*, 1925, 32, 248-250.—Black is “a color produced by zero stimulation correlated with a non-light sensation which gives one degree of intensity.”—*P. T. Young* (Illinois).

1669. **Neifeld, M. R.** The Ladd-Franklin theory of the black sensation. *Psychol. Rev.*, 1924, 31, 498-502.—The paper compares the Hering and the Ladd-Franklin theories of the sensation black, and defends the latter.—*P. T. Young* (Illinois).

1670. **Tscherning, M.** Mesures de clarté. (Measures of clarity of vision.) *Acta Ophth.*, 1927, 4, 12-19.—The writer describes his own apparatus, method, and procedure for objective measurement of clearness of vision.—*M. L. Reymert* (Wittenberg).

1671. **Woodworth, R. S.** Psychological data pertaining to errors of observation. *Internat. Critical Tables*, 1926, 1, 92-95. New York & London: Mc-



Graw-Hill.—A concise presentation in graphic and tabular form of dependable findings in the fields of vision, hearing, temperature differences, lifted weights, span of apprehension, and reaction times. 54 titles are cited. (Other sections of the International Critical Tables will give data on sight and hearing in connection with the treatment of the mechanical equivalent of light, colorimetry, and the physical aspects of audition.)—*W. S. Hunter* (Clark).

[See also abstracts 1683, 1707, 1742, 1748, 1767, 1806.]

## FEELING AND EMOTION

[See abstract 1780.]

## ATTENTION, MEMORY AND THOUGHT

1672. **Nielsen, T. F.** *Opgaveløsning og pedagogik.* (Problem solving and pedagogy.) *Arkiv f. Psykol. o. Ped.*, 1927, 6, 48-61.—Comparing the principles and tentative laws of learning of Thorndike with those of Wertheimer, Koffka, and Köhler, the writer sums up the polemic thus: The two points of view are not necessarily opposed to each other, but stress different phases of one and the same continuous process. Dewey, James, Freud, Leuba, Watson and others are brought into the discussion in an endeavor to clarify the various factors in the learning process. Besides some readily accessible references, the bibliography also includes two Scandinavian works: Larson, H., "Intuition" (Bonnier, Stockholm), and Landquist, J., "Människokunskap" (Bonnier, Stockholm), 1920.—*M. L. Reymert* (Wittenberg).

1673. **Smith, S.** *Recognition and recall.* *Psychol. Rev.*, 1927, 34, 28-33.—There is no definitive difference between recognition and recall. Evidence is presented in support of this thesis.—*H. Helson* (Kansas).

[See also abstracts 1652, 1802, 1842, 1845, 1854, 1860.]

## NERVOUS SYSTEM

1674. **Brunst, V.** *Zur Frage nach dem Einfluss des Nervensystems auf die Regeneration.* (On the problem of the influence of the nervous system on regeneration.) *Arch. f. Entwicklmech.*, 1927, 109, 41-53.—Destruction of the spinal motor centers of the hinder extremities in *Triton* does not interrupt the regeneration of these extremities, which takes place under the influence of the nerves from the spinal ganglia, which remain in connection with the sympathetic system. The elimination of function in the extremities, however, leads to the formation of numerous abnormal connections between skeletal elements, to the fusion of certain groups of elements, and in extreme cases to fusion of the whole skeleton of the extremities. Experiments where the spinal cord is destroyed above the motor centers of the hinder extremities show that these centers have no direct formative influence. Such experiments eliminate only "voluntary" movements, i.e., those requiring brain connections, but this elimination suffices to produce certain fusions of skeletal elements. Hence in this case the function of the extremity plays an important rôle in its formation.—*M. F. Washburn* (Vassar).

1675. **Cattell, J. McK., & Edwards, D. J.** *Transitional decrement of intensity in nerve conduction.* *Amer. J. Physiol.*, 1927, 80, 427-440.—Mechanical compression of apposed pieces of hard rubber of variable lengths was imposed on

the sciatic nerve with attached gastrocnemius muscle of the frog and stimulation continued until complete block was produced. With distances of 4 and 8 mm. transitional decrement of conduction was found, but no differences appeared between distances of 8 and 16 mm.—*M. J. Zigler* (Wellesley).

1676. **Freeman, W.** The columnar arrangement of the primary afferent centers in the brain-stem of man. *J. Nerv. & Ment. Dis.*, 1927, 65, 378-398.—This part of the continued article opens with a description of the "radix mesencephalia trigemini" and the evidence suggests that this part supplies proprioceptive muscle sensibility, not only to the muscles of mastication but also to the extraocular muscles. Three pages present the summary and general conclusions of the entire article. The information of the paper is summarized in a convenient three-page table. Appendix A discusses the facial nerve and its nuclei in the elephant in relation to the development of the facial musculature of the trunk. Appendix B contains a description of the neuro-histological technique used. A bibliography of 80 references completes the article.—*O. W. Richards* (Boston Psychopathic Hospital).

1677. **King, W. T.** Observations on the rôle of the cerebral cortex in the control of the postural reflex. *Amer. J. Physiol.*, 1927, 80, 311-326.—Electrical exploration in the region of the sigmoid gyrus of the cerebral cortex of the anaesthetized cat releases motor responses, but extirpation of these areas results only in a transient state of weakness and not in paralysis of the extremities. Removal of the gyrus proreus, which gives no motor response to electrical exploration, results not in motor weakness but in postural and tonic abnormalities in the contralateral extremities. The integrity of this gyrus is essential for normal postural adjustment.—*M. J. Zigler* (Wellesley).

1678. **Rose, M.** Die sogenannte Riechrinde beim Menschen und beim Affen. II. Teil des "Allocortex bei Tier und Menschen." (The so-called olfactory cortex in man and monkey. Part II of the "Allocortex in animal and man.") *J. f. Psychol. u. Neur.*, 1927, 34, 261-401.—A detailed comparative study of the architectonic characteristics of the entorhinal cortex with 35 double page charts of various sections. Considerable evidence is cited to support the view that, especially in man, this cortex has other than olfactory functions.—*L. T. Spencer* (Yale).

[See also abstracts 1656, 1666, 1701, 1733, 1736, 1744, 1758, 1770, 1781, 1786.]

## MOTOR PHENOMENA AND ACTION

1679. **Bovard, J. F., & Cozens, F. W.** Tests and measurements in physical education. 1861-1925. A treatment of the original sources with critical comment. *Univ. Oregon Publ., Phys. Educ. Ser.*, 1926, 1, pp. 94.—Part 1 sketches the historical development of anthropometry, strength tests, cardiac functional tests, physical ability tests for both sexes and various ages, and the development of indices for measuring physical efficiency. Some of the outstanding tests are reviewed in Part 2, showing the large amount of work on cardiac functional tests in relation to physical fitness, and the still larger amount of work on age and group norms in athletic achievements, with the aims of encouraging physical development, selection of persons for corrective gymnastics and those fit for strenuous competitive athletics. Some of the psychological tests of neuro-muscular co-ordination are reviewed. The field shows a constant search for single indices of physical fitness, which the authors and others point out is probably a mirage, since the various measures of physical condition, strength and skill are only moderately correlated among themselves. The work is especially important for

motor psychology in its critical discussion and summary of these allied fields. A bibliography and index increase its usefulness as a source book.—*R. H. Seashore* (Stanford).

1680. **Covell, W. P.** Growth of the human prenatal hypophysis and the hypophyseal fossa. *Amer. J. Anat.*, 1927, **38**, 379-422.—A technical quantitative morphologic study of the structure of the pituitary body, worth noting by those who are interested in the relationship of that gland to other glands of the human body.—*E. A. Gaw* (Mills).

1681. **Davies, A. E.** Speech reactions and the phenomena of aphasia. *Psychol. Rev.*, 1926, **33**, 411-450.—The author proposes to examine the motor theory of the "speech reactions" as exemplified in the position of behaviorism which regards the central nervous system as only a complex coördinating mechanism adding nothing new to impulses that pass from the peripherally located receptor to the peripherally located effector. If the phenomena of aphasia show that this is not the case, that word sounds and word sense condition word movements, the interpretation that behaviorism places upon our speech reactions will be open to serious objection. The paper is divided into four sections: (1) a statement of fundamental principles of behaviorism with the place of speech reactions in behavioristic systems; (2) a treatment of speech disturbances to distinguish aphasia from them and to show that only when our knowledge of the central cortical mechanisms was sufficiently developed did the clinical phenomena come to be understood; (3) a description of the main types of aphasia and their relation to one another in so far as the study of this subject has thrown light upon the specific centers on which the several forms of our normal speech depend; (4) a brief consideration of the speech reactions of behaviorism in the light that aphasia throws upon our knowledge of the speech complex of normal individuals, with an estimate of the value and limitations of the behaviorists' employment of the speech mechanisms in the explanation of behavior.—*H. Helson* (Kansas).

1682. **Deutsch, J.** Über die Beeinflussung frühester Entwicklungsstufen von Amphibien durch Organsubstanzen. (The influence of organic substances upon the earliest developmental phases of Amphibia.) *Arch. f. Entwicklmech.*, 1927, **109**, 110-128.—Experiments on the effect of thyroid, thymus, ovary, testis, and adrenal extracts on the development of amphibia. Thyroid and thymus have no influence on cell-division in the fertilized egg of *Triton*. All the substances used have an inhibiting effect on development, proportional to their saturation and greatest at the time of gastrulation. Adrenal extract seems to have also an influence favoring increase in size. Thyroid produces larger, thymus smaller gill-tufts.—*M. F. Washburn* (Vassar).

1683. **Ehlers, H.** On optically elicited nystagmus. *Acta Ophth.*, 1926, **3**, 254-271.—While the vestibular and cerebellar types of nystagmus have been extensively investigated, the optical forms of the phenomenon have comparatively been disregarded. Mentioning Oppel, Helmholtz, Cyon, Wirths, Bielschowsky, Bárány, and others, the writer describes in detail the methods and technique of his own experiments on the elicitation of optical nystagmus. Three different experimental set-ups were used in order to attack any possible separate determining factors. Curves demonstrating nystagmic reflexes per second put into relation to speed of rotation of objects (at varying widths of stripes) are inserted. A final experiment with a large rotating disc painted with eccentric rings gave side-results: when fixating such a disc a marked sensation of unsteadiness or even dizziness is brought about. This is in no way peculiar, as we know from Romberg's and Fournier's symptoms how much help is derived from the eyes in keeping the balance of the body. It is more interesting, however, that the unsteadiness produced can be demonstrated in the form of a positive falling-tend-

ency dependent on the direction in which the eyes have moved. In case the disc is rotated clockwise, a falling tendency to the right is evoked; rotation of the disc in the opposite direction results in a falling tendency to the left. It seems that this phenomenon has not been described before; whereas it is a well known fact that extreme peripheral fixation may result in pointing past the object aimed at (J. Kiss). Although these questions are perhaps somewhat beside the scope of optical nystagmus, they do point to a regular relation between ocular movements and the posture-sense, a relation which, ultimately, may lead to an explanation of the phenomenon of vestibular nystagmus. Selected bibliography of eight titles in German and the Scandinavian languages.—*M. L. Reymert* (Wittenberg).

1684. **Fox, H.** *Pathologic anatomy in the hypophysis cerebri in wild animals.* *Arch. Neur. & Psychiat.*, 1927, 17, 471-480.—A few observations of what might be termed "raw material" are offered on the pathology of wild animals as seen at the Laboratory of Comparative Pathology of the Philadelphia Zoological Society. Six animals showing some abnormality in or around the pituitary body have come to autopsy. In two of these cases these lesions seemed to be the principal cause of death. The records are given in full with consideration of histories, related pathology and possible relationship to other clinicopathologic states. Each condition that might be related with the pituitary is discussed briefly. In these six instances of alterations in and about the hypophysis in wild animals, there was not a definite clinical state, and peculiar lesions were not found in relationship to it. It seems that the pituitary lesion affected their health little until mechanical damage reached an advanced degree. Until more is known about the pituitary body in wild animals, attempts at conclusions would be unwise, further than to state that fatal mechanical injury has been seen.—*I. Rappoport* (Boston Psychopathic Hospital).

1685. **Gantt, W. H.** *Recent work of Pawlow and his pupils: conditioned reflexes; sympathetic nervous system (Orbeli); epilepsy and cerebrospinal fluid (Speransky).* *Arch. Neur. & Psychiat.*, 1927, 17, 514-528.—(1) As Pawlow's two books are soon to appear in English, the article is not intended to give a comprehensive review. Pawlow, who considers all acts as reflex, distinguishes between two kinds: the simple physiologic reflex, inborn and unalterable, and the more complicated reactions, usually called psychic, which are acquired and formed only under certain conditions. The former are his unconditioned, the latter his conditioned reflexes. It was his next idea to measure these processes set up by various stimuli, and he worked out delicate apparatus for carrying on these experiments. Some of the theories worked out by Pawlow need new terms, such as: "analyzer, inhibition, irradiation, delayed reflex, trace reflex, chain reflex, induction in the brain." These various terms are explained. The production and treatment of neurasthenia in dogs has recently been studied in Pawlow's laboratory. The work of Krasnogorski on conditioned reflexes in children is discussed. (2) Orbeli summarizes his work as follows: The sympathetic nervous system exerts a profound influence over the physiochemical changes occurring in skeletal muscle, accompanied by a modification of the functional ability of that muscle. These changes influence, it seems, the conditions of the motor end-plate, calling forth transformations in the efficiency of the corresponding muscle. This forms a sort of regulatory mechanism for the expenditure of muscle strength, and governs the condition of impulses by the motor nerves. From this point of view, the sympathetic innervation of skeletal muscle is an adaptive innervation through which the functional ability of the muscle is determined. (3) Speransky concludes: In local disease of the nervous system a destruction of the brain substance occurs in the affected parts. Parts of the products of the incomplete combustion arising from this destruction are transported into the cerebrospinal fluid, and through it poison the brain. In such a



way local disease becomes general, and to this we owe the mechanism of the development of diffuse encephalitis. Speransky recommends careful study of the cerebrospinal fluid, of its ferments and its hydrogen ion concentration.—*I. Rapoport* (Boston Psychopathic Hospital).

1686. **Kaiser, L.** *Examen phonétique expérimental d'un sujet privé de larynx.* (Experimental examination of the speech of a subject deprived of the larynx.) *Arch. néerl. de physiol.*, 1926, 10, 468-480.—The subject of this report was a man of 40 years from whom the larynx had been completely extirpated three years previously. The final outcome of the operation made air accessible to the trachea through an opening in the neck just above the sternum and left the oesophagus in its former relation with the pharyngeal, buccal, and nasal cavities. At the junction of the pharynx and oesophagus a vocal slit was artificially made to substitute for the voice box of the larynx. Through this air was forced, for purposes of vocalization, from the oesophagus and stomach, the only usable reservoirs for air. During normal exhalation the contractures of abdominal and thoracic musculature caused a relatively weak flow of air in and out of the nose or open mouth by their actions upon the stomach and the oesophagus. Special contractures cause a more vigorous outflow of air which is required for speech. The voice of the subject was originally relatively deep, but now is still deeper than prior to the loss of the larynx. Spoken words are perceptible even at long distances and the voice is not monotone in character; it is even more varied than that of the normal individual. Its range is about two octaves, which is similar to that of normal cases, but only the middle part of this range is under voluntary control.—*C. P. Stone* (Stanford).

1687. **Kampmeier, O. F., & Birch, C. LaF.** *The origin and development of the venous valves, etc.* *Amer. J. Anat.*, 1927, 38, 451-499.—This is a suggestive physiological study which illustrates the effect of environment upon the structure of the human body. "It may be asked, why are the valves best developed in the fetus and why do they exhibit a propensity toward retrogression with age? It is conceivable that during growth to maturity, as muscular movements become more stereotyped, certain ruts, so to speak, are worn also in the vascular plexus."—*E. A. Gaw* (Mills).

1688. **Kunde, M. M., & Nordlund, M.** *Inactivity and age as factors influencing the basal metabolic rate of dogs.* *Amer. J. Physiol.*, 1927, 80, 681-690.—Restriction of physical activity of dogs, fed on high caloric diet, decreases basal metabolism, while daily exercise, short of that causing exhaustion, increases basal metabolism. Four full-grown dogs, kept within the laboratory from 2 to 12 years of age, show no decline of basal metabolism as a result of advanced age when kept on a high protein diet and allowed moderate daily exercise.—*M. J. Zigler* (Wellesley).

1689. **Rexroad, C. N.** *Verbalization in multiple choice reactions.* *Psychol. Rev.*, 1926, 33, 451-458.—Data are presented from two related experiments that are readily interpretable only if it be assumed that the individual is almost constantly making verbal responses and that these responses play a large part in setting off overt responses. This evidence supports the behaviorist's conception of the word as a stimulus. Three stimuli of widely different physical composition—color green, printed-word green, and spoken-word green—set off the same verbal response and through this the same finger response. This is a laboratory example of Weiss' distinction between biosocial equivalence and biophysical equivalence.—*H. Helson* (Kansas).

1690. **Reynolds, M. S., Sevringhaus, E. L., & Stark, M. E.** *The mechanical efficiency of the body on carbohydrate, fat and mixed diets.* *Amer. J. Physiol.*, 1927, 80, 355-362.—By the use of the Sevringhaus bicycle ergometer, the muscular efficiency of 3 healthy adult subjects was determined under mixed, under

strictly fat and protein, and under strictly carbohydrate diets. Variation in type of diet had no significant effect upon net efficiency.—*M. J. Zigler* (Wellesley).

1691. **Reznikoff, P., & Aub, J. C.** Lead studies: XIV. Experimental studies of lead palsy. *Arch. Neur. & Psychiat.*, 1927, 17, 444-465.—(1) Experiments with isolated nerve-muscle preparations from frogs have shown that the onset of fatigue in muscles which have been exposed to lead is much more rapid and complete than normal. (2) The contractility of "lead" muscles is often completely lost, and recovery from fatigue is always impaired. (3) When muscles are immersed in Ringer's solution containing lead, the acidity of the solution increases markedly. (4) As far as can be seen from response of muscle to nerve stimulation, lead salts seem to have no deleterious action on the conductivity of the nerve of an isolated nerve-muscle preparation from a frog. (5) In one experiment, records of action currents taken from both nerve and muscle also indicate that lead acts on muscle and not on nerve. (6) Marked weakness or even palsy develops in fatigued extensor muscles of "leaded" rabbits and cats. This was manifested by great difficulty in extending the forepaw. (7) The threshold of these weak muscles to stimulation is much higher than that of unfatigued muscles or of the corresponding muscles in control animals. (8) Neither lead nor fatigue alone causes palsy, but both are necessary to establish the condition. (9) The physiologic lesion of lead palsy is in the muscle itself, and the muscles which are fatigued are most susceptible to lead paralysis. (10) An attempt has been made to explain susceptibility to lead palsy on the basis of the chemical and physiologic reactions between the metabolic products formed during muscular activity and lead as it occurs in the human organism.—*I. Rapoport* (Boston Psychopathic Hospital).

1692. **Rogoff, J. M., & Ecker, E. E.** Susceptibility of albino rats to tetanus toxin following adrenalectomy. *Amer. J. Physiol.*, 1927, 80, 200-208.—125 albino rats were used, some as controls and the rest variously operated upon (both adrenals removed, one adrenal removed and laparotomy without removing the glands). Tetanus toxin in variable dosage was administered. Results indicate that none of these forms of adrenal operation leave the animal either more or less susceptible to tetanus toxin. This finding conflicts with statements of previous writers that adrenalectomy increases susceptibility to tetanus.—*M. J. Zigler* (Wellesley).

1693. **Smith, A. H., & Jones, M. H.** The effect of unilateral nephrectomy on the growth of the white rat. *Amer. J. Physiol.*, 1927, 80, 594-600.—Unilateral nephrectomy does not prevent the growth of white rats to adult size, as measured by increment in body weight and body length, if a ration of moderate concentration of protein is given. If extreme protein content is given, growth is halted at a point definitely below that of the controls.—*M. J. Zigler* (Wellesley).

1694. **Turner, A. H.** The circulatory minute volumes of healthy young women in reclining, sitting and standing positions. *Amer. J. Physiol.*, 1927, 80, 601-630.—The Field-Bock method (by CO<sub>2</sub> content of alveolar air) was used on 25 subjects. Average c. m. v. values (indicating output from the heart) were, in litres: reclining, 6.26; sitting, 5.59; standing, 4.77. The latter figure decreased as standing continued. Since the heart rate varied inversely with these values, the output per beat showed the same trend as the c. m. v. in a more pronounced manner. Relations were indicated between the c. m. v. values and stature, training and season.—*R. R. Willoughby* (Clark).

1695. **Winters, J. C., Smith, A. H., & Mendel, L. B.** The effects of dietary deficiencies on the growth of certain body systems and organs. *Amer. J. Physiol.*, 1927, 80, 576-593.—One hundred male albino rats were separated into four groups, each of which was fed 40 days upon a diet of one of the following

types—low calorie, inadequate protein, gliadin diet and inadequate salt. They were then dissected and observations were made as to various items of physical growth. Comparisons were made with normal rats of the same body weight so as to determine more fully the differential effects of the different diets. There was persistent skeletal growth in all four groups during the period of feeding upon deficient diets. Body length increased most on gliadin diet and least on low salt diet. The weight of leg bones was 50% or more above that in normal animals of the same body weight in all cases except the group which was fed upon inadequate salt diet. In this group bone weight decreased 30 to 40%. There was slight increase in brain weight in all groups. The most marked influence upon organs was in increase of kidney weight under low salt diet. In no case was there increase in any part of body equivalent to the growth of normal rats in an equal period of time.—*M. J. Zigler* (Wellesley).

[See also abstracts 1654, 1657, 1671, 1677, 1698, 1707, 1728, 1739, 1743, 1746, 1773, 1774, 1780, 1830, 1865.]

#### PLANT AND ANIMAL BEHAVIOR

1696. **Adolph, E. F.** Changes in the physiological regulation of body volume in *Rana pipiens* during ontogeny and metamorphosis. *J. Exper. Zool.*, 1927, **47**, 179–195.—An experimental study of the body volume of various stages of the developing frog when placed in various concentrations of sodium chloride and sucrose. The change in regulation is due to change in the properties of the skin.—*L. Carmichael* (Princeton).

1697. **Agar, W. E.** The regulation of behavior in water-mites and some other arthropods. *J. Comp. Psychol.*, 1927, **7**, 39–74.—By four types of experiment (a two-alternative maze, pain-avoiding experiment; a temperature gradient adaptation or reaction experiment; an experiment on variable behavior induced by abnormal temperatures; and an experiment in merely observing the feeding habits of the organisms) it was determined that several species of Arthropods (water-mites) show no power to learn to choose an alley, of two, in avoiding unfavorable conditions, even though additional stimuli, such as light and touch, were introduced to expedite the development of choice reactions. The fresh water crayfish *Parachanna*, however, showed well-developed ability to learn. There is a high correlation between the intelligence shown in the first experiment and the everyday modes of life of the organisms, especially the water-mites, which catch their prey in a very unintelligent manner. Variability of behavior seems to be a direct function of abnormally high or abnormally low temperatures of the water in which the animals are located, and thus the duration of any action is inversely proportional to the discomfort experienced during said action; this fact, of change or variation of behavior induced by discomfort from the stimulating medium, underlies trial and error learning. Water-mites avoid prolonged stay in injurious temperatures by a trial-and-error process, and the frequency of random changes of direction increases with the degree of the injurious heat. A parallel between variable behavior under abnormal conditions and variability of size and structural features of the organism under abnormal conditions is drawn. Four figures, three tables, and fourteen references are presented.—*H. R. Crosland* (Oregon).

1698. **Aronovitch, J. D.** Reflexes in apes. *J. Nerv. & Ment. Dis.*, 1927, **65**, 457–463.—The writer, following the belief that nervous syndromes found in man are manifestations of regression from an evolutionary point of view, examined neurologically 23 apes. Practically all the reflexes were elicited except the ab-

dominal reflexes. This leads to the belief that the appearance of these reflexes in man is related to the acquisition of the erect posture of the human body with its accompanying actions of standing and walking on two legs. Thus the abdominal reflexes are phylogenetically new reflexes.—*E. C. Whitman* (Boston Psychopathic Hospital).

1699. *Ask, F., & Anderson, E.* Zur Frage der Replantationsmöglichkeiten des Vertebratenauges im Lichte einiger neuerer Untersuchungen. (On the question of the possibility of the replantation of the vertebrate eye in the light of some recent investigations.) *Acta Ophth.*, 1927, 4, 97-164.—Ask summarizes earlier articles, (*Acta Ophth.*, 1925, 3, 12), refers to recent experiments in the United States, France, Switzerland and Austria, and discusses results of several recent investigations of replantation of the eye of warm-blooded vertebrates and other animals. He summarizes these results under six headings. He then gives his own results, especially from the replantation of the eye of a 1½ year old gold fish and a 1 year old tench. After a period of 13 to 13½ months certain nerve connections were established between the proximal severed ends of the optical nerve and the bulbus, first of all by the regenerating of the unmyelinated parasympathetic nerve fibers. In some cases, especially when the retina was well preserved, myelinated fibers were also found to function, and such fibers might keep their vital capacity up to 13½ months after operation. In well preserved retinas in implanted eyes a greater or less abundance of myelinated fibers may develop from the ganglion cell nerve fiber tract of the retina. Regenerating trigeminal fibers may, after anatomical healing, grow into the implanted eye. The text is elucidated by especially clear colored and black-and-white cuts. Many technical side-results are also discussed.—*M. L. Reymert* (Wittenberg).

1700. *Carmichael, L.* A further study of the development of behavior in vertebrates experimentally removed from the influence of external stimulation. *Psychol. Rev.*, 1927, 34, 34-47.—The first part of the article deals historically and critically with experiments designed to determine inherited *vs.* acquired behavior. The second part deals with the author's experiments in which drugged *Amblystoma punctatum* were placed in fresh water and the time was taken from the moment of immersion until the first movement occurred. The animals were re-anaesthetized and the time taken for this and for the first movements to appear after the second immersion in tap water. In a check experiment free swimmers were anaesthetized and the time taken for their first response to stimulation in tap water. "The conclusion of the present experiments is that there is little significant difference in the time required for the very first observable response on release for (from?) the anaesthetic in an organism that has never before shown movement and in one that has been free-moving, re-anaesthetized, and released the second time. . . . It is shown that a neuromuscular apparatus that had never before functioned as a response mechanism is capable of determining external behavior the very first time that it is effectively stimulated. Development of behavior mechanism is not alone dependent upon heredity or environment, but . . . it is the result of the interdependent action of both these factors."—*H. Helson* (Kansas).

1701. *Forbes, A., Miller, R. H., & O'Connor, J.* Electric responses to acoustic stimuli in the decerebrate animal. *Amer. J. Physiol.*, 1927, 80, 363-380.—The brain stems of decerebrate cats were connected to a Hindle string galvanometer and records were taken of the galvanometric excursions occasioned by various kinds of auditory stimuli. Electrical responses to these stimuli are regularly indicated by the galvanometer, although motor responses to auditory stimuli appear only in very exceptional cases in decerebrate cats. Sounds of brief duration, such as a single click of a watchman's rattle, elicit more abrupt and often larger responses than those produced by a maximal induction shock of



the sciatic nerve. Tuning forks occasion only very feeble oscillations of the instrument. The relative merits of the place theory and of the frequency theory of pitch discrimination are discussed.—*M. J. Zigler* (Wellesley).

1702. **Frison, T. H.** Experiments in rearing colonies of bumblebees (*Bremidae*) in artificial nests. *Biol. Bull.*, 1927, **52**, 51–67.—The description of a method whereby bumblebees may be raised in captivity under controllable conditions for observation.—*W. T. Heron* (Minnesota).

1703. **Heller, H. H.** Peruvian pets. *Nat. Hist.*, 1924, **24**, 479–494.—A popular but careful, first-hand account of the behavior of four small animals used as household pets in Peru. These are a weasel, a rodent (*Dinomys branicki*), a fox-like creature (*Pseudalopex*), and the tayra, or *Galictis*. The second is described as a rather slow moving corpulent beast about 10 inches long that for escape from its enemies exists in steep places and relies on the single aerobic feat of balancing itself cautiously where others cannot climb. It is terribly irritated by being lifted or carried.—*W. R. Miles* (Stanford).

1704. **Kepner, W. A., & Jester, P. N.** The reaction of *Hydra* to inanition. *Biol. Bull.*, 1927, **52**, 173–182.—Experiments show that specimens of *Hydra*, if kept in isolation and starved, will feed upon their own tentacles. This process will continue until only stumps of the tentacles are left. The tentacles will then be regenerated with a consequent decrease in the size of the body of the animal. In some cases, part of the second crop of tentacles will be ingested, but the specimen soon dies.—*W. T. Heron* (Minnesota).

1705. **Kinder, E. F.** A study of the nest-building activity of the albino rat. *J. Exper. Zool.*, 1927, **47**, 117–161.—Following the pioneer work of Richter, this paper presents an experimental study of nest building in the albino rat. The results are expressed in the quantitative terms of number of strips of white paper used in nest construction. The activity of nest building was noted as early as the 20th day of life and it lasts at least as long as the 210th day. Young animals with no previous experience in nest building, on being presented with nest material, showed the activity to a marked degree. Temperature influences nest building: the activity is greater at low than at high temperatures. It is suggested that nest building is thus part of the thermoregulative activity of the animal. Suggestions are made concerning the importance of behavior as a means of heat regulation in the higher animals. Nest building is seen in animals of both sexes. The fluctuations of the activity in the male follow no regular order, but in the female they are intimately related to the phases of the oestrous cycle. The maximum nest building activity is found in adult female rats following parturition. Variations in food intake cause definite variations in nest building, an absence in food causing an increase in the activity. The paper contains a bibliography and 24 figures.—*L. Carmichael* (Princeton).

[See also abstracts 1678, 1688, 1693.]

## EVOLUTION AND HEREDITY

1706. **Heath, H.** Caste formation in the termite genus *Termopsis*. *J. Morph.*, 1927, **43**, 387–425.—Among the members of a colony of *Termopsis nevadensis* measurements of scores of recently hatched young disclose no differences other than those of ordinary variation, either in width of head, number of antennal segments, or size of the brain or gonad. Among the members of a new colony only soldiers are produced during the first three or four years. At the end of this time the oldest members are in the seventh, eighth, or ninth instars. The winged insect appears invariably in the eighth. No signs of wings exist

until the reproductive instar appears, after which every member of the sixth, and probably the fifth, instar possesses small but distinct rudiments. The author maintains that of the three castes of the primitive genus, one, at least, is a modification only. He believes the others may be. He weighs the theories of production of soldiers only during the three or four years of a colony's early existence in terms of influence of extrinsic and intrinsic factors, and finds the explanation of reactions noted equally baffling in terms of either. The explanation of the definiteness of the point at which the reproductive caste appears in *Termopsis* and the explanation in other insect series in which four or five castes are produced with fair degrees of regularity are even more difficult to explain with present theories. The study is of primary interest to students of heredity. 3 plates, 21 figures.—*H. R. Laslett* (Whitman).

1707. **Holm, E.** Hereditary nystagmus. *Acta Opth.*, 1927, 4, 20-28.—On the basis of the respective literature and cases from personal practice, Holm distinguishes between two groups of hereditary nystagmus; in the first, the affection appears by direct transmission, attacking both sexes; in the second group it appears as a rule only in the sons, being however transmitted by the daughters, following the rule for sex-limited recessive descent. Congenital hereditary nystagmus should be considered due to a defect in the development of the eye and ensuing amblyopia. Thus it retains its close relationship not only to the so-called optical nystagmus, but also to the other forms of hereditary structural defects which are attended by nystagmus and amblyopia, such as albinism, aniridia, and total color blindness. Graphs of hereditary transmissions and cuts demonstrating nystagmus are included.—*M. L. Reymert* (Wittenberg).

1708. **McClung, C. E.** Synapsis and related phenomena in *Mecostethus* and *Leptysma* (Orthoptera). *J. Morph.*, 1927, 43, 181-265.—The author gives the sequences of reactions among the chromosomes in *Mecostethus* in synapsis. The homologous spermatogonial chromosomes, which have become split in the telophase, become closely associated in the "diatene" stage ("the prophase, anaphase, and telophase of the spermatogonia"). Next "the distal end of each chromosome is swept around through 180° so that it lies at the same pole of the nucleus as the proximal one, thus producing a loop (peritene stage). . . . The chromosomes shorten and thicken and lose their definite orientation (phanerosome stage). . . . Gradually the chromosomes extend themselves into processes until their substance is so distributed that their characteristic staining reaction is lost and distinct outlines disappear (cryptosome stage)." After this comes a condensation of the chromosomes with a reappearance of well-defined chromosome outlines (the diakinesis stage or confused stage of Wilson). There are variations in the time of association of the homologues, but the numerous common characteristics of the chromosomes among the species studied leads to a conclusion that chromosome characteristics will yield additional valuable results in taxonomy and in the general study of hereditary processes. Four plates, 57 figures.—*H. R. Laslett* (Whitman).

1709. **Metz, C. W.** Genetic evidence of a selective segregation of chromosomes in *Sciara* (Diptera). *Proc. Nat. Acad. Sci.*, 1926, 12, 690-692.—The inheritance of a recessive wing character in *Sciara coprophila* shows a modification of the usual Mendelian ratios. The heterozygous  $F_1$  males appear to transmit only the maternal genes for this trait, excluding the paternal gene, and reducing the  $F_2$  phenotype ratio from the familiar 3:1 to 1:1. This genetic evidence is supported by a previous cytological study, which revealed a paternal-maternal segregation of chromosomes, at the time of spermatogenesis.—*H. E. Jones* (Columbia).

1710. **Zirkle, C.** Some numerical results of selection upon polyhybrids. *Genetics*, 1926, 11, 530-583.—Devises experiments upon hypothetical populations

in which various types of selective breeding are postulated. Author believes results may cast light upon the effect of differential reproduction with respect to human intellect. Formulae are derived and numerical consequences computed for the results of the following systems of selection: (1) The elimination in each generation of all individuals dominant for all of the  $m$  independent factors dealt with in a polyhybrid of  $m$  allelomorphs. (2) The elimination in each generation of all individuals who are not dominant for all of the  $m$  independent factors in a polyhybrid of  $m$  allelomorphs. (3) The elimination in each generation of all individuals recessive for all  $m$  independent factors in a polyhybrid of  $m$  allelomorphs. (4) The elimination in each generation of all individuals (a) containing two or more independent dominant factors, and (b) containing three or more independent dominant factors in a polyhybrid of  $m$  allelomorphs.—*B. S. Burks* (Stanford).

[See also abstracts 1664, 1722, 1723.]

## SPECIAL MENTAL CONDITIONS

1711. **East, W. N.** The interpretation of some sexual offences. *J. Ment. Sci.*, 1925, 71, 410-424.—This article is a discussion of crimes which are due to the abnormal working of the sexual instinct. The author divides the instinct into its two parts, its object and its aim. Normally the object is a member of the opposite sex. In certain cases either of these may be perverted. The normal object may be replaced by one of the same sex. Or the desire may be directed towards the parent of the opposite sex. Feticism is another form of perversion of the object. Among the crimes due to perversions of the aim are those of aggression, sadism and exhibitionism. There are case of crimes due to the regression of the instinct to an earlier stage of development, or its projection upon some other person. In this last the individual throws onto some outside individual the content of his own mind, which he refuses to acknowledge to himself. In conclusion, the author suggests that in many cases the family physician may be in a position to see these perverted functionings of the sex instinct before they develop to the point where they occasion crime.—*P. McClennen* (Boston Psychopathic Hospital).

1712. **Ellis, H.** The conception of narcissism. *Psychoanal. Rev.*, 1927, 14, 129-153.—The history of the legend of Narcissus is traced through the literature of Ovid, Calderon, Milton, Rousseau and Valera to its use in psychiatry, which was at first vague, as with Niefforo (Italy, 1897), Moll (Germany) and Féré (France). Ellis claims credit for the first use of the appellation (in 1898—"Auto-eroticism, a psychological study") when he interpreted certain states as tendencies "for the sexual emotions to be absorbed, and often entirely lost, in self-admiration. This *Narcissus-like* tendency, of which the normal germ in women is symbolized by the mirror, is found in minor degree in some feminine-minded men. . . ." In a review of this paper Näcke made *Narcissus-like* into *Narcissmus*. Freud, then, in 1910, in the second edition of his "Drei Abhandlungen zur Sexualtheorie," uses the term narcissism to describe a stage in the development of masculine sexual inversion, the subject being supposed to identify himself with a woman (usually his mother) and so acquiring self love. In a later study, Freud credits Otto Rank with having given to narcissism "a place in the regular development of human beings." Having previously been a perversion, it now becomes "the libidinal complement to the egoism of the instinct of self preservation." In persons whose libidinal development has suffered disturbance, their own selves are taken as models. They seek themselves as love-

object, and their type of choice of love-object may be termed narcissistic. The differences of use of the term are then traced through numerous writers of the present day.—*A. H. Sutherland* (Scarborough School).

1713. **Goddard, H. H.** *Two souls in one body?* New York: Dodd, Mead, 1927. Pp. xiii + 242. \$2.50.—A detailed account of the author's Norma-Polly-Louise multiple personality case, written partly from the popular standpoint. The patient was a 19-year-old girl of good intelligence and somewhat suppressed demeanor; her principal alternating personality was that of a likable but boisterous and irresponsible four-year-old, which apparently had the value of regressive fantasy escape; there appeared later a sixteen-year-old personality which seemed to be Norma herself with three years' experiences subtracted. The author's hypothesis was "exhaustion of the nervous system" (not explained, except popularly by analogy). His aim was, therefore, to restore (chiefly by hypnosis) to each personality the memories taken from it by the others, and in the meantime to build up the nervous constitution sufficiently to enable it to face the task of sustaining all of them simultaneously. By these means a cure has been effected, which has endured now (with two slight lapses under unusual strain) for three years. Goddard has investigated the early history of this case, and on the basis of his findings points out that it is only a spectacular example of the results being brought about in lesser degree constantly by the uncomprehending and uninterested attitude of both home and school toward the child; the individual who satisfies the gross criteria demanded is not further considered, whatever his needs; he who does not is merely labeled "bad" and forcibly repressed, thereby making the matter worse. Goddard does not condemn the home for this so much as the school, which can, if it is not already so and really desires it, become equipped to treat these problems intelligently. A remarkable, not to say appalling, addition to the book is a selection from the hundreds of letters of advice (spiritistic, religious, phrenological, astrological, chiropractic, palmistic, etc., etc.) received during the treatment; herein, one suspects, lies the key to the style of the book, which is evidently designed to let in a little daylight to these palaeozoic recesses of the public mind.—*R. R. Willoughby* (Clark).

1714. **House, S. D.** *A psychosexual inventory.* *Psychoanal. Rev.*, 1927, 14, 154-171.—The author presents a list of 13 pages of questions, to be asked as the basis for a study of the normal sex life of a young man (unmarried).—*A. H. Sutherland* (Scarborough School).

1715. **Lewis, N. D. C.** *The sexual significance of ancient chemical symbols.* *Psychoanal. Rev.*, 1927, 14, 200-206.—In the days of alchemy, symbols were invented to represent the known chemical substances. The clearest key to these symbols is to be found in the writings of Heinrich Eschenreuter, discovered in 1403 in the walls of a cloister of a church. Symbols representing the pubic triangle, breasts, genitalia, etc., of male and female were used to represent substances then supposed to have characteristics analogous to those possessed by male and female humans.—*A. H. Sutherland* (Scarborough School).

1716. **Lodge, O., Doyle, A. C., Bond, F. B., Crandon, L. R. G., Austin, M., Deland, M., McDougall, W., Driesch, H., Prince, W. F., Schiller, F. C. S., Coover, J. E., Murphy, G., Jastrow, J., & Houdini, H.** *The case for and against psychical belief.* Worcester: Clark University, 1927. Pp. 365. \$3.75.—This series of lectures, edited by Carl Murchison, presents a comprehensive statement of the problems of telepathy, mediumship, and the relationship of psychical research to philosophy and psychology. The first six authors are listed as convinced of the multiplicity of psychical phenomena. Authors seven to ten are listed as convinced of the rarity of genuine psychical phenomena. The next two authors stand as unconvinced, and the two last are antagonistic to the claims that such phenomena occur. Crandon and Prince present opposite views on the famous



Margery mediumship. Coover summarizes a part of the history of metapsychics and contrasts the method of the séance and the method of the laboratory. "The method of the séance is precisely adapted to produce illusions and hallucinations, and it strains credulity to imagine that any trustworthy observations come from it." "The use of the scientific method, and instruments of precision, does not constitute a threat to the medium, . . . and neither she nor her manager should demur at their use. . . . Sincerity on the part of those in charge of the phenomena should inspire not only a willingness to coöperate in the only method of research fitted to advance knowledge, but an earnest request to be allowed to do so. This attitude would immediately disarm many *a priori* critics, and recommend the medium to the psychologist as a suitable subject for his laboratory." Murphy reviews the evidence for telepathy with particular reference to the experiments of Brugmans at Groningen and of his own while holding the Hodgson Fellowship in Psychical Research at Harvard. Murphy points to certain results which cannot be explained at present, and indicates certain of the precautions to be taken in future work.—*W. S. Hunter* (Clark).

1717. **Morgan, J. J. B.** *The nature of suggestibility.* *Psychol. Rev.*, 1924, **31**, 463-477.—Suggestibility and negativism are allied. Suggestibility is said to be an attitude or set which makes a person amenable to a wide range of stimulus-situations. Negativism shows itself in the failure to accept suggestions. Morgan believes suggestibility and negativism to be related to the neural phenomena of facilitation and inhibition. A person is suggestible when "tuned" to respond to some external situation; he is negative when his internal set is opposed to the external stimuli of the moment. The attitudes of suggestibility and negativism have a developmental history. Normal individuals display both, now one and now the other. In describing an experimental test of suggestibility it is noted that the schizophrenic individual is negative whereas the psychoneurotic is suggestible. A shift in sensory acuity during day-dreaming is proposed as a possible experimental check upon the two types. Suggestible individuals show a lowering of the intensive threshold for auditory stimuli whereas negative individuals show a rising of the threshold.—*P. T. Young* (Illinois).

1718. **Vaughan, W. F.** *The psychology of compensation.* *Psychol. Rev.*, 1926, **33**, 467-479.—Various types of compensation are discussed, with their effect upon personality, success and mental balance.—*H. Helson* (Kansas).

[See also abstracts 1650, 1792, 1816, 1829.]

## NERVOUS AND MENTAL DISORDERS

1719. **Adler, H. M.** *The relation between psychiatry and the social sciences.* *Amer. J. Psychiat.*, 1927, **6**, 661-669.—The most important segment of the social mechanisms—behavior reactions the origin of which are found within the organism itself—is clearly the problem of psychiatry alone. In the study of behavior which arises from the reaction between the individual and the outside world the social sciences have an important rôle. Political science, economics and sociology all bear upon the problem of the environmental factor in man's life. The psychiatrist is interested in the individual, while the sociologist claims the field of social relations. The psychiatric social worker, though she is the practitioner of the sociologists, is not concerned with the group, but rather, like the psychiatrist himself, with the individual. Where the personal interests of the patient are concerned, she takes the point of view of the psychiatrist, but with regard to general social problems she represents the social sciences. She acts as a sort of projection of the psychiatrist into the environment of the pa-

tient. She must become not merely the agent of the psychiatrist but a specialist associated with the psychiatrist and professionally subordinate to him.—*B. Kendall* (Boston Psychopathic Hospital).

1720. *Ahern, J. M.* Certification as a "moral imbecile." *J. Ment. Sci.*, 1925, **71**, 264-267.—A discussion of the term "moral imbecile" as defined in the Mental Deficiency Act in England, emphasizing the great value of the second half of the definition which provides that in addition to "some permanent mental defect, which has existed from birth, vicious or criminal propensities undeterred by punishment are included." Thus "a lesser degree of defect should suffice for certification if coupled with incorrigibly vicious propensities."—*E. F. Symmes* (Boston Psychopathic Hospital).

1721. *Åhman, G.* Svårigheter och stötestenar i kampen mot medfödd syfilis. (Difficulties and obstacles in the fight against congenital syphilis.) *Svenska Läkartidn.*, 1927, **24**, 505-518.—Ten case-histories illustrating the disastrous effects on family and social welfare traceable to infected individuals who avoid treatment and keep their disease a secret in marriage, with suggestions for a general education of the public not only by physicians but by all appropriate educational agencies.—*M. L. Reymert* (Wittenberg).

1722. *Alford, L. B.* Dementia praecox as a type of hereditary degeneration. *Amer. J. Psychiat.*, 1925, **4**, 623-630.—The advisability of studying dementia praecox in relation to other nervous disorders is emphasized. When so considered dementia praecox by virtue of its hereditary nature and progressive course is found to resemble most closely the hereditary degenerations or atrophies. If collected into a group, these conditions, with others which closely resemble them although not definitely shown to be of the same nature, are found to comprise perhaps fifty distinct nervous disorders, which attack many different nervous functions producing a variety of motor sensory and mental disturbances. The pathology of dementia praecox is best explained by considering it to be one of this group—one in which the affected structures happen to be particularly important in mental activity. The logical field for further investigation appears to be that of heredity.—*G. Stowell* (Boston Psychopathic Hospital).

1723. *Almkvist, J.* Är omöjligheten av ett paternt syfilisöverförande till fostret bevisad? (Has the impossibility of paternal transfer of syphilis to the offspring been proven?) *Svenska Läkartidn.*, 1927, **24**, 378-388; 412-421.—Arguing from an extensive international literature and from cases observed in his own clinic of syphilitic children born from mothers absolutely free from symptoms, the writer answers the question contained in the title negatively, and concludes: "The dogma of the impossibility of paternal transfer of syphilis is in great need of revision."—*M. L. Reymert* (Wittenberg).

1724. *Alpers, B. J.* A study of one hundred and two ventricular fluids in cases of brain tumor. *Amer. J. Psychiat.*, 1925, **4**, 509-519.—The results of the investigations of 102 ventricular fluids in cases of brain tumor are presented. In 45 per cent a diagnosis of brain tumor was made on the basis of serological findings and was confirmed by operation. Lange's Gold Sol curve served as the basis for diagnosis; other cerebro-spinal fluids were found to be of little value for this purpose. There could be no typical curve established for brain tumors. The cell count was increased in certain cases, but this was not a uniform finding. The findings, which are not given as typical of brain tumor, are offered with the idea that help may be obtained from laboratory findings in certain cases of brain tumor, and show that Lange's Gold Sol test has proved the greatest help in these examinations.—*G. Stowell* (Boston Psychopathic Hospital).

1725. *Atkinson, R., & Nash, A. M.* Camp Mento. *Tr. School Bull.*, 1925, **23**, 251-256.—This story of the way 344 children used the camp is a demonstration of the happy useful times these institutional children can have. The pos-

sibilities which this experiment indicates are many.—*E. M. Achilles* (Columbia).

1726. **Bailey, P.** The syndrome of mental automatism and its rôle in the formation of the chronic systematized psychoses: a review. *J. Nerv. & Ment. Dis.*, 1927, **65**, 345-360.—“The syndrome of mental automatism—sensory, motor, and ideoverbal—is due to the physico-chemical alteration of the cortical neurons, or their connectives, by a subtle and systematic insult at an age when their resistance is greatest. This alteration may be due to infection, intoxication, degeneration, traumatism, etc. The syndrome usually begins with nonideational (anidéic) phenomena—echo of thought, salad of words, etc. The subject, who is surprised by these phenomena in their neural affective state, usually gives to them an exogenous explanation because of their strangeness and their lack of connection with his habitual psychism, and may react to them by erecting a system of delirious ideas determined largely by his previous personality, the result being a chronic hallucinatory psychosis.”—*O. W. Richards* (Boston Psychopathic Hospital).

1727. **Bond, E. D., & Partridge, G. E.** Interpretations of manic-depressive phases. *Amer. J. Psychiat.*, 1925, **4**, 643-662.—“The study up to the present time is to be regarded rather as an attempt to find fruitful ways of approaching the manic-depressive mental processes than as conclusive at any point. We feel the need of coördinated study in which the whole background of personality is considered in close relation to the manifestations of the disordered state. There is as yet no view of this psychosis based upon physiological data that is satisfactory, and, in the light of our cases, we should have to conclude that none of the generalizations about complexes and the like are very convincing. Both the personality and the mental reactions appear to be rather widely varied from case to case, and we must admit that the principle of unity that would make the phases of manic-depressive reactions take their place as aspects of one fundamental psychological, or physiological, process is wanting. A single small group (our cases in which manic reactions have occurred) show sufficient homogeneity so that they may be characterized roughly, but only so, in a general sketch, in which some common features of personality are shown. We see, also, that both manic phase and depression may be produced on the basis of this same personality. Further study of the depressions may show how the depressive cases may be related to the manic and be brought better under general formulas, but at the present time we find no very hopeful conceptions in the field.”—*G. Stowell* (Boston Psychopathic Hospital).

1728. **Bowman, K. M.** Endocrin and biochemical studies in schizophrenia. *J. Nerv. & Ment. Dis.*, 1927, **65**, 465-483.—Special studies were made on 24 schizophrenic cases in an attempt to secure useful information concerning the nature of the schizophrenic process. The following tests were made: X-ray studies, basal metabolism, blood sugar curve, galactose tolerance test, blood chemistry, blood count, Kottman test, spinal fluid, gastric analysis, renal function, oculocardiac reflex. 48% showed a low basal metabolism, slightly less than half showed an abnormal blood sugar curve, a study of the blood chemistry showed no deviation from the normal, the blood counts are essentially normal, the Kottman test seems to be without significance and probably unreliable, the spinal fluid showed nothing anomalous, findings from the gastric contents suggest a functional disorder of the stomach and tend to confirm the X-ray findings, and the general conclusion of the oculocardiac tests is that there is no constant disorder of the vegetative nervous system in schizophrenia. The article is to be continued.—*E. C. Whitman* (Boston Psychopathic Hospital).

1729. **Brill, A. A.** Schizoid and syntonetic factors in neuroses and psychoses. *Amer. J. Psychiat.*, 1925, **4**, 589-598.—Of the definite psychotic types Kraepelin gave us two well-marked entities, the dementia praecox and manic-depressive

groups. They are the two outstanding impressive types of the functional psychoses. They are not, however, always clean cut; many cases may show characteristics of both. "Kretschmer contrasts the milder forms of dementia praecox in latent schizophrenics with the milder types of manic-depressive insanity, designating them as schizothymic and cyclothymic." Bleuler has said that most of the cases falling into the latter groups are neither cyclic nor thymic and he has proposed for this reaction the name Syntonic. "That most neurotics are latent schizophrenics has long been known. Bleuler has for some time counted all compulsion neuroses to schizophrenias, but thought it remarkable that the usual forms of these neuroses do not merge into dementia." He also thinks that if there is taken away from the neuroses that which does not belong to them, namely, the tendency to primitive reactions, the other neuroses are simply manifestations of the schizoid mechanisms. Psychoanalytically these reactions have been known under different names. Transference has long been distinguished from narcissistic neuroses, the former including hysteria and compulsion neuroses, while the latter refer to the praecox and paranoid types. Translating schizoidism and syntony into Freudian principles, we can say that every transference neurotic has also a fragment of narcissistic libido, and depending on the quantity and quality, there is either a frank transference neurotic, a mixed type, or one so deeply narcissistic that no treatment is influential.—G. Stowell (Boston Psychopathic Hospital).

1730. **Brown, S.** *State administrative problems in the care of mental defectives.* *Amer. J. Psychiat.*, 1925, 5, 240-249.—The care of mental defectives has only recently become a state problem. Some states have attempted to meet this problem, but few, if any, have solved it adequately. A general program is suggested for the care of the mental defectives, the principal features of which are: 1. Institutions admitting all types of cases, including the infirm, the school group, and the adult group. The staff should consist of a medical superintendent, psychiatrists, psychologists, special teachers, social workers and trained personnel. 2. These institutions should organize farm colonies, supervise parole cases, and conduct clinics in the community. 3. Separate institutions for defective delinquents. 4. Provisions in the public school system for ungraded classes with separate classrooms and specially trained teachers. 5. A commission or a department under a mental hygiene department to supervise and direct this program. 6. Adequate legislation defining clearly the legal procedure in regard to the care of mental defectives.—E. Beckwith (Boston Psychopathic Hospital).

1731. **Bryant, R. H.** *The constitutional psychopathic inferior a menace to society and a suggestion for the disposition of such individuals.* *Amer. J. Psychiat.*, 1927, 6, 671-689.—Some of our social problems which have been heretofore considered as strictly problems for society to deal with have come to be more properly considered as psychiatric-social problems; delinquent individuals of a certain type—the psychopathic personality or constitutional psychopathic inferior—who were formerly disposed of in some other way, are now considered more or less irresponsible and are being sent to institutions for the care of the insane. A large percentage of this type is definitely antisocial; the part they play in producing crime is out of proportion to their actual number, because of the high percentage of recidivism among them. Whatever measures are taken to curb them in their criminal career should not fail to consider their peculiar personalities. Segregating this type of delinquent and placing them under conditions of restraint similar to those applied to lunatics, is recommended. The best solution would be the agricultural colony under the enlightened supervision of suitable officials who would conduct studies and investigations in the endeavor to gain an insight into their mental mechanism. Such segregation would have the advantage of ridding society of a considerable number of criminals, of



giving psychiatrists a chance to study the type at close range, of protecting the individual from his own misfortune, of enabling the individual to contribute, in some measure at least, to his own support, and (if the condition is hereditary) of stopping the propagation of such individuals.—*B. Kendall* (Boston Psychopathic Hospital).

1732. **Burr, C. W.** *The mental disorders of childhood.* *Amer. J. Psychiat.*, 1925, **5**, 145-161.—The greatest emphasis in this article is laid on mental disorders which occur in children who are apparently normal during childhood but break at puberty or early adolescence. Frequently the cause is prenatal; more rarely it may be external strain or stress. Clinical psychology is very important because through its benefits more than a few children can be guided to healthy maturity. Of equal importance is the influence of disease on the future mental health. To illustrate these points many diseases and cases are cited.—*G. Stowell* (Boston Psychopathic Hospital).

1733. **Claude, H., Santenoise, D., & Targowla, R.** *An attempt at a biologic diagnosis of states of excitement and depression.* *Arch. Neur. & Psychiat.*, 1925, **13**, 729-742.—The authors made a study of the neurovegetative tonus of more than 600 psychopathic subjects and found a disturbance of the vagosympathetic system in many of them. They discovered further that "certain vagosympathetic formulas corresponded to certain psychoses and were almost characteristic of these diseases." The determination of the existence of hyper-vagotonia, hypersympathicotonia, hyperexcitability of both systems, temporary atony, or irreducible atony, has aided diagnosis considerably. The oculocardiac and solar reflexes were used in determining the state of the neurovegetative system for a time. But due to the difficulty of detecting these in uncoöperative patients, the authors chose Lewis and Benedict's alimentary glycosuria test in order to determine vagotonia.—*D. Shakow* (Boston Psychopathic Hospital).

1734. **Cornwall, L. H.** *Metastatic meningo-encephalic carcinomatosis without tumefaction.* *Arch. Neur. & Psychiat.*, 1927, **17**, 466-470.—The case is reported because the pathologic features are at variance with the usual concept of tumor of the brain. This case may be added to those already recorded as an illustration of brain neoplasm of meningo-encephalic distribution without macroscopic tumefaction. The nature of the neoplasm was a metastatic gelatinous carcinoma, the primary site being in the gastric mucosa. The extension from the primary site in the gastric mucosa would appear to have been by way of the perineural lymphatics. The basis for this opinion lies in the fact that metastases were observed in the zone occupied by nerve fibers in the stomach wall, in the perineural sheaths of the skin nerves, in the subarachnoid space, in the perivascular lymph spaces of the encephalon and within the substance of the optic, facial and auditory nerves.—*I. Rappoport* (Boston Psychopathic Hospital).

1735. **Darling, I. A.** *General paralysis of the insane during senescence.* *Amer. J. Psychiat.*, 1925, **4**, 751-756.—The following conclusions are drawn from a study of a number of cases of general paralysis of the insane: "(1) The differential diagnosis of general paralysis of the insane and psychoses with arteriosclerosis or somatic diseases may be difficult and depend to a great extent upon laboratory examinations of the spinal fluid. (2) General paralysis of the insane is frequently the cause of the first admission to hospitals of patients 60 or more years old; in this series 8 per cent of all admissions are due to the disease. (3) The cases studied in this report indicate that the period of incubation, duration of mental symptoms, and prognosis for periods of improvement is about the same with these old people as for the general average of the disease."—*G. Stowell* (Boston Psychopathic Hospital).

1736. **Davis, L. E.** *Decerebrate rigidity in man.* *Arch. Neur. & Psychiat.*, 1925, **13**, 569-579.—A report of a case of physiologic lesion resulting in decere-

brate rigidity which meets the basic requirements of and produced a clinically similar picture to experimentally produced decerebrate rigidity.—*D. Shakow* (Boston Psychopathic Hospital).

1737. **Dawson, W. R.** *The work of the Belfast war hospital.* *J. Ment. Sci.*, 1925, **71**, 219-224.—An account of a mental hospital opened especially as a war emergency. In over a thousand cases considered the diagnosis given by early medical papers was accepted and the statistics based on these. During the first year the most striking feature was the small number of dementia praecox cases while the proportions of stupor, alcoholic insanity and shell-shock were higher. In the two succeeding years the proportion of praecox increased, as well as general paralysis, epilepsy, and mental deficiency; the explanation being that these were the residue of incurable cases from former years. Roughly three-fourths of all discharged were recovered or so far improved as to warrant extra-mural care; the favorable character of the results being due probably to the fact that the patients were young, vigorous, picked men but subjected to the strain of overseas service, most of them having suffered casualties in active service.—*E. F. Symmes* (Boston Psychopathic Hospital).

1738. **Dearborn, G. V. N.** *The determination of intellectual regression and progression.* *Amer. J. Psychiat.*, 1927, **6**, 725-741.—The short, or starred, form of the Stanford scale has been used by the writer in the last five years as a test for prognostic change in psychosis, for determining regression. Regression of abstract intelligence frequently does not have to be considered a permanent loss of mentality; in praecox and manic-depressive cases, in the psychoses with psychopathic personality, in the psychoneuroses and some others, distinct and permanent progression may occur. The entire validity of intellectual measurement in psychotic states, when the measuring is done by a competent medical psychologist, is, in the writer's opinion, beyond question. Regression is shown (1) in a lowering of the habit or power of voluntary attention, leaving it "spotty" and unreliable, (2) in a virtual or a real lessening of the power of memory and recall, (3) in derangement of conceptual association, (4) in derangement of perception, and (5) in a process of mental evasion well capable of modifying the intellectual process in many ways. Just what each of the 35 tests of the short scale contributes to the measurement of intellectual progression or regression is shown in the discussion of each test in turn. The use of the scale in this intensive way requires hard and attentive, intelligent, patient work by the examiner—constant intensive effort, properly adapted every moment to the needs of that moment.—*B. Kendall* (Boston Psychopathic Hospital).

1739. **Drury, K. K., & Farran-Ridge, C.** *Some observations on the types of blood-sugar curve found in different forms of insanity.* *J. Ment. Sci.*, 1925, **71**, 8-29.—"The primary object of this research has been attained, that is, the demonstration that in a large proportion of cases the blood sugar curves found in the insane vary greatly from the accepted normal. While we feel that we have only touched the fringe of an immense and uncharted field, we are of the opinion that we have arrived at several interesting conclusions: (1) That the general metabolism is far more disordered in insanity than one would be led to believe by casual observation. (2) That in many cases where the metabolism would appear to be normal it is in fact greatly upset. (3) That amongst the mental symptoms, confusion and melancholia are associated with the greatest disturbance of the sugar metabolism; whether this is *post hoc* or *propter hoc* remains to be seen. (4) That the sugar metabolism in epilepsy, in the quiet stages, approximates most closely to the normal. (5) That the renal threshold level is very variable, and consequently that one cannot draw from the absence of sugar in the urine any conclusion as to the fasting level percentage of sugar in the blood."—*E. F. Symmes* (Boston Psychopathic Hospital).

1740. **Elkind, H. B.** The epidemiology of mental disease; a preliminary discussion. *Amer. J. Psychiat.*, 1927, 6, 623-640.—The conclusion that mental disease is not on the increase is based mainly on statistical data for Massachusetts, New York, and Rhode Island. First admissions are used as an index of incidence of mental disease in a state, and other types of admission, such as "temporary care" and voluntary admissions, as supplementary indices of prevalence. Certain factors have tended to raise the level of rates of admissions without actually bringing about a simultaneous rise in incidence of mental disease, e.g., the inclusion of "temporary care" admissions, which may in some cases be second admissions, or of border-line disease, and the effect of foreign immigration. An increase of mental disease before 1912 may be in part an apparent increase due to change of classification, better detection and diagnosis, improved institutional care of the insane, more effective administrative control, associated with a more coöperative and understanding public. Eleven graphs are included to illustrate the tendencies.—*B. Kendall* (Boston Psychopathic Hospital).

1741. **Elwood, E. S.** The place of psychiatry in the medical school curriculum. *Amer. J. Psychiat.*, 1925, 4, 767-774.—A study of the curriculum of the seventy Class A medical schools reveals the fact that the time given to psychiatry varies greatly even in the leading schools. It is generally considered by the professor of psychiatry that sixty hours is an irreducible number allowable for didactic and clinical work. At Hopkins a course of 11 hours in medical psychology is given to first year students and this is followed by courses in the three remaining years. At some of the other schools similar courses are given in the second year, followed by work in the third and fourth year. It is a great gain to the student to be given the mental point of view early in his medical training. But it is evident that psychiatry has not been sold to the general profession nor to many of our leading medical educators quite so effectively as it might have been, and that of the seventy schools rated as Class A by the Council on Medical Education of the American Medical Association, many are not Class A in psychiatry.—*G. Stowell* (Boston Psychopathic Hospital).

1742. **Fabricus-Jensen, H.** Der Einfluss der Lumbalpunktur auf den intraocularen Druck. (The influence of lumbar puncture on the intraocular pressure.) *Acta Ophth.*, 1927, 4, 36-43.—Results, presented in detailed tabular form, from measurements on 30 patients show no definite relationships.—*M. L. Reymert* (Wittenberg).

1743. **Farr, C. B., Leuders, C. W., & Bond, E. D.** Studies of gastric secretions and motility in mental patients. *Amer. J. Psychiat.*, 1925, 5, 93-101.—There seems to be some evidence that emotion or increased nervous tension in those who are capable of an emotional response has a very decided effect on gastric secretion. Emotional factors may influence gastric secretion in one direction or the other very perceptibly, but such effects are usually associated with acute emotion and not with a mere habitual feeling tone. The question of gastric motility is physiologically so closely associated with gastric secretion that the two cannot be easily separated. The effects which we have been considering would naturally concern what we may call the higher "levels"—sympathetic and parasympathetic control. It might be surmised that there may also be disturbances on the lower levels—in the intrinsic nervous mechanism of the gut, or even in the myogenic mechanism, but the observations do not afford any real basis for profitable speculation in these fields.—*G. Stowell* (Boston Psychopathic Hospital).

1744. **Farran-Ridge, C.** Some symptoms referable to the basal ganglia occurring in dementia praecox and epidemic encephalitis. *J. Ment. Sci.*, 1926, 72, 513-523.—This study, with bibliography for each symptom discussed, points out the striking resemblances, making differential diagnosis difficult, between

certain manifestations of epidemic encephalitis and dementia praecox. Among the symptoms included are wasting and obesity; fluttering of the eyelids (blepharoclonus); pruriginous phenomena; chewing movements; greasy face (*salbengesicht, visage huileux*); respiratory disorders; choreiform manifestations. The explanation offered for these similarities is, first, that morbid process in the nervous system quite naturally meets with preformed mechanisms, and interference with any of these would tend to produce the same functional disorder; and secondly, that in both epidemic encephalitis and dementia praecox (especially katatonia) the basal ganglia are attacked, and the same parts of the brain would therefore be the seat of the disease process.—*E. F. Symmes* (Yale).

1745. **Fenton, N.** Anticipation neurosis and army morale. *J. Abn. & Soc. Psychol.*, 1925, 20, 282-293.—“In the anticipation neurosis, the novelty of response comes from the fact that the stimuli are all developed by the patient and spring from his own imagination. The importance of the anticipatory type of neurosis was not in their frequency nor in their clinical appearance; but in the fact that they show that fear is so primal a quality that the organism responds relatively quickly to the expectancy of danger as well as to the fact. Further, the existence and recognition of this form of neurosis gave a ready explanation for a condition seen in the recovered or apparently recovered cases of combat neurosis when the anticipation of a renewal of that experience led to the re-development of the original clinical picture previously removed by treatment. A study of this factor, anticipation, indicates that it is present in all cases of neurosis; and that recovery in the cases of war neurosis during the period of active fighting is on that account more often apparent than real, as, due to anticipation, there may be at any time a recurrence of the old symptoms.”—*E. F. Symmes* (Boston Psychopathic Hospital).

1746. **Gibbs, C. E.** The suprarenal cortex and blood cholesterol in dementia praecox. *Amer. J. Psychiat.*, 1925, 5, 189-215.—“That some disturbance of lipid metabolism may occur in dementia praecox and may involve the suprarenal cortex has been suggested by the following: (a) Previous observations on the sexual development and behavior of these patients. (b) The evidence that the suprarenal cortex is involved in these disturbances of sexual development. (c) The evidence that the suprarenal has both an embryologic and functional relation to the gonads on the one hand and to the brain on the other. (d) Substances of a lipid nature play an essential part in the functional metabolism of each of these organs. (e) The female sex hormone and the vitamins for reproduction are both of a lipid nature. (f) The low basal metabolic rate frequently observed in dementia praecox suggests an involvement of the suprarenal. The evidence for these considerations is reviewed. The significance of cholesterol is discussed.”—*E. Beckwith* (Boston Psychopathic Hospital).

1747. **Gibson, G.** The boarding-out system in Scotland. *J. Ment. Sci.*, 1925, 71, 253-264.—The boarding-out system refers to parish patients living under private care either with relatives or strangers and does not mean necessarily that the patient has been in an asylum. The system is quite separate from the asylum treatment of the insane. In the case of patients boarded out from an asylum the superintendent's responsibility ceases once they are transferred, unless for some cause they are returned. The administration is in the hands of parish councils who select the homes and prescribe regulations. Patients are visited by a medical man every three months and by an inspector of poor once every six months. Types of patients found in private dwellings are idiots, imbeciles, and those with acquired insanity, the latter being mostly transfers from asylums—mild and chronic manias. The boarding-out system educates public opinion in a better attitude toward mental patients and serves to prevent the asylum system from becoming a monopoly.—*E. F. Symmes* (Boston Psychopathic Hospital).



1748. Gjessing, H. G. A. Further investigations as to the results of some glaucoma operations, particularly referring to iridencleisis antiglaucomatosa cum iridotomia meridionali ad modum Holth. *Acta Ophth.*, 1926, 3, 228-233.—Results from 89 operations by the Holth method. Perceived or increased strength of vision was demonstrated in 86% of the cases.—M. L. Reymert (Wittenberg).

1749. Globus, J. H., & Selinsky, H. Metastatic tumors of the brain: a clinical study of twelve cases with necropsy. *Arch. Neur. & Psychiat.*, 1927, 17, 481-513.—In the comments on each case it was attempted to correlate the clinical and the anatomic manifestations. The impressions are summed up in the following statement: The clinical signs and symptoms arising from metastatic tumors of the brain depend on: (1) the extent of involvement of the brain by the principal largest mass; (2) the presence of a mass, however small, in a vital part of the cerebrospinal axis, and (3) the presence of a metastatic nodule so situated that it will obstruct the normal flow of cerebrospinal fluid. Summing up the more constantly found clinical manifestations, the following are regarded as characteristic of metastatic tumors of the brain: (1) An acute and often precipitate onset of cerebral manifestations, commonly of a disjointed or disseminated character, simulating a meningo-encephalitic process, is found. (2) Symptoms of increased intracranial pressure, such as headache, nausea, vomiting and dizziness, which are usually out of proportion to the objective neurologic observations, occur. (3) Papilledema is not common; it usually occurs when a tumor mass obstructs the escape of cerebrospinal fluid from the lateral ventricles. (4) The rapidly declining clinical course is characterized by the progressive appearance of new and poorly linked or diffuse signs and by general wasting and growing asthenia. (5) Psychotic manifestations were present, as a terminal event in a limited number of cases, and seem to have no diagnostic value beyond indicating widespread cellular reaction.—I. Rappoport (Boston Psychopathic Hospital).

1750. Glover, J. Divergent tendencies in psychotherapy. *Brit. J. Med. Psychol.*, 1926, 6, 93-109.—The author attempts to lay the foundations for a science of psychotherapy. He believes that the future progress of psychotherapy depends on the extent to which it can be established as an autonomous branch of applied science, its researches conducted in the spirit of other scientific inquiries, and its interventions carried out with the impersonal detachment and efficiency of other technical therapies. After drawing a parallel between the checkered histories of psychotherapy and of psychology, he asserts that the young science of psychopathology should exploit its own resources, develop its own concepts, and strengthen its formulations and techniques. The problem is, of course, of fundamental importance to future mental medicine.—N. Fenton (Ohio).

1751. Goldsmith, H. A plea for standardized and intensive treatment of the neurosyphilitic and paretic. *Amer. J. Psychiat.*, 1925, 5, 251-261.—In his study of 237 cases of all types of neurosyphilitic conditions, Dr. Goldsmith used neo- and sulph-arsphenamine alternately. The solution of neo-salvarsan was given intravenously. Following this the patient was prepared for spinal drainage, if the case was cerebro-spinal syphilis or paresis. Three days later, and subsequently after each injection of the neo-arsphenamine the patient was given 1 to 1½ gr. of salicylate of mercury intramuscularly. This treatment was continued for five successive weeks, after which the patient was given a rest of four weeks during which potassium iodide or sodium iodide was given by mouth. Following the rest period the patient was given five weekly injections of sulphur arsphenamine, given intramuscularly. No mercury injections were given, but a solution consisting of mercury and potassium iodide was given daily by mouth.

The paper is summarized as follows: "(1) This paper is a plea to institute systematic and intensive treatment for the benefit of the neurosyphilitic or parietic, be the latter in the first or last stage. (2) The method described is simple and devoid of practically all danger, and has shown very gratifying results in the study of 237 cases of all types of neurosyphilitic conditions. (3) While the treatment is in no way superior to others, it is at least worthy of trial, since it is quickly administered and there are very few complications attendant upon its administration. (4) It is more desirable to recognize the disease in its earliest form so that intensive treatment may be instituted and the best results obtained."—*E. Beckwith* (Boston Psychopathic Hospital).

1752. **Good, T. S. Encephalitis lethargica.** *J. Ment. Sci.*, 1925, 71, 225-235.—"The truth about encephalitis appears to be that it is due to an acute toxæmia. The selective factor may be either physical or psychological stress. It is only by careful investigation by every method, both physical and psychological, that we can hope to arrive at a correct interpretation of the values of the predisposing factors; that is to say, combined team work is essential in our investigations. In the past there has been too much severance between the investigators at the general hospital and those at the mental hospital. As the training of the medical profession has been in the past mainly along physical lines, the trend of investigation has naturally been predominantly physical, and therefore, though mind has been accepted as existing as part of the general make-up of the individual, it is only quite recently that the workings of the mind have been studied with what one might term a psychological technique. The adherents of this technique have, perhaps, by over-emphasizing their theories, brought upon themselves and their methods a certain measure of incredulity and opprobrium such as is often caused by the over-enthusiasm of the adherents of any new method. The ultimate solution of the problem of psycho-neuroses and psychoses is to be found only by investigating their manifold phenomena by both psychological and physical techniques."—*E. F. Symmes* (Boston Psychopathic Hospital).

1753. **Gordon, A. Prolonged confusional states simulating dementia praecox. Differential diagnosis.** *Amer. J. Psychiat.*, 1925, 4, 757-766.—The problem of dementia praecox is still a matter of considerable hesitation and diagnostic difficulty in a number of instances. . . . Among the psychoses with which dementia praecox may be confounded, confusional states of long duration are particularly liable to mislead. The essential features of the two psychoses are as follows: What is frequently considered as dementia praecox is often only a confusional psychosis; speech in both cases is absurd, but the confusional is sometimes capable of giving correct answers. A confusional psychosis has its particular disorder in a state of defective adaptation, orientation and determination; the essential characteristic of dementia praecox lies in a profound invasion of feelings, emotions, and tendencies even in their most superficial relationship. This later on is gradually substituted by a continuous apathetic state. In order to arrive at a positive diagnosis and to estimate correctly the mental status of a confusional or of a praecox one must determine the degree of the patient's power of appreciation of his own condition and of the surroundings. The degree and the genuineness of the intellectual deficit should not be overlooked.—*G. Stowell* (Boston Psychopathic Hospital).

1754. **Graham, N. B. The malarial treatment of general paralysis.** *J. Ment. Sci.*, 1925, 71, 424-431.—This paper describes the results of malarial treatment applied to 55 cases of general paralysis. Of these 36% were considerably improved, enough so that they could again take up work outside the hospital. 10% died, either during the treatment or shortly afterwards. The benefit of malaria treatment is much greater the earlier it is applied and it seems to be the

best method so far discovered for the treatment of general paralysis.—*P. McClennen* (Boston Psychopathic Hospital).

1755. *Grossman, S.* The value of simple laboratory tests in the diagnosis of neuro-syphilis as compared with the Wassermann reaction. *J. Ment. Sci.*, 1925, 71, 439-442.—For a long time the Wassermann reaction was considered the only reliable test for the diagnosis of neuro-syphilis. The author of this article suggests four other possible tests which correlate with the Wassermann and are much simpler to carry out. They can be made in any hospital, while the Wassermann requires very special apparatus and much time. These tests are (1) the Nonne-Apelt, (2) that described by Weichbrodt, (3) that of Boltz, and (4) that of examining and estimating the cells in the spinal fluid.—*P. McClennen* (Boston Psychopathic Hospital).

1756. *Guillain, G., Mathieu, P., & Bertrand, I.* Etude anatomo-clinique sur deux cas d'atrophie olivo-ponto-cérébelleuse avec rigidité. (Anatomico-clinical study of two cases of olivo-ponto-cerebellar atrophy with rigidity.) *Ann. de méd.*, 1926, 20, 417-459.—The previous history and clinical findings of these cases is presented in detail. In addition, the data resulting from histological examinations of the cerebelli are presented and analyzed. The anatomical findings show that there is no focal lesion but that there is a diffuse cellular atrophy of the cortex together with degeneration of the myelin of all cerebellar tracts having their origin in the brain stem. The clinical findings show that the olivo-ponto-cerebellar atrophy of Dejerine and Andre Thomas is a well defined disease. In addition to the classical symptoms of cerebellar disturbance there is marked rigidity, symptoms simulating Parkinson's disease, and mask-like facies. It is distinct from the Parkinsonian syndrome because of the absence of family history, late appearance, and the absence of sensory disturbance. The physiological implications with special reference to the rigidity (hypertonus) and tremor are discussed.—*F. Fearing* (Ohio Wesleyan).

1757. *Henry, G. W., & Mangam, E.* Blood in personality disorders. *Arch. Neur. & Psychiat.*, 1925, 13, 743-749.—“(1) Determinations of the carbon dioxide combining power of the blood plasma of 200 patients consecutively admitted to the hospital indicate that this combining power is unaffected by psychoses unless there is some definite accompanying physical disease. (2) Determinations of the urea nitrogen content of the whole blood of 143 patients consecutively admitted give negative results. (3) Further studies of the non-protein nitrogen, uric acid, dextrose and chlorid content of the blood of persons suffering from personality disorders corroborate the negative results reported by other observers. (4) Glucose tolerance tests show more or less characteristic changes in the glucose content of the blood of patients in either phase of affective psychoses and in the acute stages of dementia praecox. These changes indicate a definite retardation of functions of the vegetative nervous system in manic-depressive depression and in the acute stages of dementia praecox and an acceleration of these same functions in manic-depressive excitement.”—*D. Shakow* (Boston Psychopathic Hospital).

1758. *Horrax, G., & Bailey, P.* Tumors of the pineal body. *Arch. Neur. & Psychiat.*, 1925, 13, 423-470.—The authors present a clinical and pathologic report of twelve verified cases of tumors of the pineal body. “(1) Of the five prepubertal cases, two showed considerable evidence of ‘pubertas praecox.’ (2) The presence of ‘pubertas praecox’ in a patient who also shows manifestations of increased intracranial pressure and of involvement of the corpora quadrigemina is pathognomonic of pineal tumor, but there is no evidence from our histologic and pathologic studies that any secretion can come from the pineal cells to cause this syndrome. (3) The neurologic localizing signs of pineal tumors consist largely in (a) involvement of the corpora quadrigemina, i.e., oculomotor palsies,



partial or complete deafness; (b) spasticity, usually bilateral; and (c) evidences of implication of the cerebellum or cerebellar tracts. (4) The pineal body is made up of two cell types: (a) neuroglia cells and (b) pineal parenchymatous cells, with a connective tissue stroma. No nerve cells are present. (5) Many of the tumors of the pineal body consist of the foregoing elements in varying proportions, and are best described as 'pinealomas' of adult type. (6) Some tumors of the pineal body consist of embryonic cells of ectodermal origin, and may be called 'pinealomas' of embryonic or 'spongioblastic' type."—*D. Shakow* (Boston Psychopathic Hospital).

1759. **Houlton, T. L.** General paralysis: the histopathology of the basal ganglia, corpus callosum and dentate nucleus in four cases. *Arch. Neur. & Psychiat.*, 1927, 17, 214-230.—The uniformity and consistency of the cellular pathologic change found in the basal ganglia in ordinary cases of general paralysis may be noted. It would also be of interest to theorize concerning these observations in explaining symptoms found in advanced cases; similar symptoms, usually more severe, are found in non-specific diseases of the basal ganglia. The conclusions drawn are: (1) Definite pathologic changes occur in the basal ganglia in ordinary advanced cases of general paralysis. (2) These changes are similar to and quite as severe as those found in the cortex. (3) The brain tissue bordering the ventricles shows greater pathologic changes than the tissue at a distance from it. The etiologic factors in the origination of the speech disturbance, the expressionless facies, and the fine tremors about the eyes and mouth, found in cases of general paralysis, may be the pathologic changes in the cells of the basal ganglia.—*I. Rappoport* (Boston Psychopathic Hospital).

1760. **Hughes, E. M.** Social significance of Huntington's chorea. *Amer. J. Psychiat.*, 1925, 4, 537-574.—A study of 218 cases shows the following: (1) The disease is not frequent in the Michigan state hospitals. (2) It appears to be one of the few strictly inheritable diseases. (3) The age of onset varies widely. (4) There seems to be no reliable indication in early life of the later development of the disease. (5) Behavior difficulties appeared in two-thirds of the choreics. (6) With regard to mental disease, the greater number of the hospitalized cases were classified with the psychosis undifferentiated. (7) The average length of life after the development of the disease was found to be 16.1 years. (8) Exhaustion was the most frequent cause of death. (9) Seventeen cases of Sydenham's chorea were found to have occurred in otherwise non-choreic relatives; Sydenham's chorea also occurred in three individuals who afterward developed Huntington's chorea. (10) Other neuropathic conditions found in the families of choreics appear to be incidental. (11) The families were largely of mixed race and rural environment predominated. (12) Only 31 per cent of the choreics became public charges. (13) Potential choreics evidently do not abstain from marriage. Prevention will best be gained through education of the public to the dangers of transmission, in the hope that the affected stock will avoid marriage, or employ voluntary sterilization.—*G. Stowell* (Boston Psychopathic Hospital).

1761. **Isserlin, A.** Die Entwicklung des Simulationsbegriffes in der Psychiatrie. (The development of the simulation concept in psychiatry.) *Allg. Zsch. f. Psychiat.*, 1924, 80, 355-390.—Noteworthy discussion of the present position in the development of the simulation concept. In occasional disputed situations a genuine simulation is rightly adhered to.—*Th. Ziehen* (Halle a/S.).

1762. **Johnstone, E. R.** A research program for the study of feeble-mindedness. *J. Abn. & Soc. Psychol.*, 1925, 20, 157-169.—An outline giving some idea of the scope of proposed research at the Training School at Vineland, N. J., which may be possible through the coöperation of various state institutions. The three major fields of inquiry suggested are medicine, psychology, and anthropol-



ogy, and the two principal methods of approach the general study of groups of carefully selected individuals and the intensive study of particular or isolated phenomena. In the field of medical science such investigations are suggested as studies of internal stigmata, focal infection, ductless glands, behavior and development, food requirements and basal metabolism. In the realm of psychology further work is proposed in long-time studies, classification, learning ability, the emotions, sensitivity, fatigue, memory, instincts and association. Under the head of anthropology and social science are anthropometry, heredity, environment, economics, and sociology. This program is not entirely adequate, but intimates in general the possibilities of research among the feeble-minded.—*E. F. Symmes* (Boston Psychopathic Hospital).

1763. **Kindred, J. J.** The neuro-psychiatric and disabled wards of the United States Government. The present status of their medical care, hospitalization, rehabilitation, and compensation disability. *Amer. J. Psychiat.*, 1927, 6, 711-724.—The status of the neuro-psychiatric ex-service men is discussed from the viewpoint of hospitalization, vocational and professional rehabilitation, disability compensation, and the medical and other welfare agencies employed in their interest during and since the war. Increased hospitalization was made possible during 1925, through the completion of hospitals previously authorized by Congress. Under the World War Veterans' Act of 1924, out-patient treatment and clinics and supervision of patients who have returned to the community have been instituted, and extended during the past year. The insanities among the ex-service men are largely the insanities of every-day life and are not distinguishable from those suffered by non-service men of the civil communities. Of the 298,176 hospital cases of all types since July 1, 1919, to September 30, 1925, 15,210 were psychotic, of which latter number 248 were discharged from the hospital as "fully recovered," and 3726 discharged as "benefited"—a most notable and unfavorable recovery rate.—*B. Kendall* (Boston Psychopathic Hospital).

1764. **Klein, E.** Intravenous treatment of some epileptics with calcium chloride and gluco-calcium. *J. Nerv. & Ment. Dis.*, 1927, 65, 372-378.—“(1) There was no benefit derived from the use of calcium over four and five months periods in various types of epileptics. Not only was there no diminution in the number of seizures, but there was a tendency towards an increase. (2) No advantage was seen in the use of gluco-calcium over calcium chloride. (3) There was no sustained increase in the calcium concentration of the blood serum after the injection of one-half to two grams of calcium salts.” These findings were obtained with 27 patients.—*O. W. Richards* (Boston Psychopathic Hospital).

1765. **Klopp, H. I.** The care of tuberculosis patients in mental hospitals. *Amer. J. Psychiat.*, 1927, 6, 641-659.—The standards vary in regard to the care of mental patients afflicted with tuberculosis. Efforts should be continued rather than relaxed for the better segregation, more humane care and intelligent treatment of these patients. The results of a questionnaire sent to 163 state hospitals show that 16 hospitals out of 106 have no provision for the segregation of mental patients with tuberculosis, and that only eight institutions have provision for the care of turbulent cases in connection with detached pavilions or buildings. The system of detection of tuberculosis consists quite uniformly of the systematic clinical examination of every patient at admission and, for the most part, of a full physical examination at least once a year. Fifty-five hospitals take X-ray photographs of the chest, and a few make fluoroscopic examinations. Each hospital should have detached buildings, preferably of the pavilion type, for the segregation of these patients; and provision for their care should include the usual clinical and medicinal facilities, heliotherapy, ultra-violet ray, and occupational and diversional therapy. To accomplish a more definite reduction in the

development of tuberculosis in mental hospitals, there should be less crowding upon the wards where deteriorated and turbulent cases are cared for, and diversional and outdoor activities should be provided for this most neglected group.—*B. Kendall* (Boston Psychopathic Hospital).

1766. *Laird, D. A. Detecting abnormal behavior. J. Abn. & Soc. Psychol., 1925, 20, 128-141.*—The presentation of a test for detecting abnormal behavior, developed from Woodworth's "Psychoneurotic Inventory," in an attempt to find persons in need of mental hygiene and to provide an instrument which would give a fairly precise quantitative measure of the degree and kind of deviation from the normal. The use of the test thus far has been very gratifying. "Whether it has found *all* in need of this attention or not is, of course, undeterminable; but it has found a large number for whom there has been a distinct need for orthosis and who would otherwise probably never have been noticed until something serious had occurred."—*E. F. Symmes* (Boston Psychopathic Hospital).

1767. *Larsson, S. Über Tenonitis und die begleitende intraokuläre Drucksteigerung nebst einigen Bemerkungen über den intraokulären Druck bei retrobulbären Affektionen im allgemeinen. (On tenonitis and the accompanying intraocular pressure, together with some remarks on intraocular pressure in retrobulbar affections in general.) Acta Ophth., 1926, 3, 207-227.*—Three detailed case histories of the extremely rare eye disease named tenonitis by Birch-Hirschfeld, followed by a general discussion and a brief summary. Bibliography in text.—*M. L. Reymert* (Wittenberg).

1768. *Lehrman, P. R. Conversion hysteria in a child. Amer. J. Psychiat., 1925, 5, 133-144.*—Child neuroses are generally managed by pedagogical measures; however, modifications of a psychoanalytic method have proved feasible, and the report of the present case may contribute to evolving a technique for the treatment of neuroses in children. The procedure used was not like the analysis of an adult. It was much more rapid and ran more smoothly. It consisted of interviews and explanations, and the examiner's attitude was friendly and confident, but at the same time distant. A richness of phantasies of a sexual character and masturbatory practices since the age of four were successfully brought out. Incest strivings made themselves manifest in transference phenomena, and the birth phantasy appeared to be the dominating factor in the symptomatology. When the father's attention was withdrawn at the arrival of a brother the need for a neurosis was created. During the course of treatment the patient gained insight into the meaning of her illness and after twelve interviews was discharged as well.—*G. Stowell* (Boston Psychopathic Hospital).

1769. *Levy, D. M. Notes on psychotherapy. Soc. Serv. Rev., 1927, 1, 78-83.*—In recent years, the psychiatric social worker has developed into an active therapeutic assistant and has organized an independent therapeutic equipment which she can utilize as indicated by the psychiatrist. The outstanding developments of the technique of the psychiatrist himself have been the use of psychoanalytic methods with children and the application of the conditioned response.—*G. J. Rich* (Institute for Juvenile Research).

1770. *Lewis, N. D. C. An unusual manifestation of metastatic miliary carcinomatosis of the central nervous system. Amer. J. Psychiat., 1925, 5, 172-182.*—"The purpose of this paper is twofold; first, to present the neuropathological study of a curious biologic injection of malignant epithelial cells into the central nervous system, and second, to emphasize again the difficulties in differentiating functional from certain organic mental disorders when encountered in early developmental stages and when the lesions are diffuse in nature. The acute onset of symptoms, the mental reaction, the diffuse neurologic signs, the difficulties in diagnosis, the rapid progress and early termination, the

widespread cancer injection of the cerebral structures with peculiar arrangement of the cells and the failure to discover either primary carcinomas or metastases in the other organs of the body, are some of the features justifying a report of this unique problem."—*E. Beckwith* (Boston Psychopathic Hospital).

1771. **Looney, J. M.** The inorganic constituents of the blood of catatonic patients. *Amer. J. Psychiat.*, 1925, 5, 214-218.—A preliminary report of the results thus far obtained in an attempt to determine whether there was any relation between the calcium level and the degree of rigidity in a group of rigid catatonic patients in whom an increase of creatine was previously demonstrated. Blood specimens were obtained from each patient and the calcium, magnesium, potassium and sodium content of the serum determined. Treatment for increasing the calcium content of the blood was given to seven of the cases with lowest calcium values. The calcium content was raised about 1 mg. "There was no change noted in the clinical condition of the patients. This investigation is being continued and it is hoped that it will be possible to raise the calcium values up to about 15 mg. and keep them there for a period of at least a week so that definite conclusions may be drawn as to whether such a change results in any diminution of the muscle tension."—*E. Beckwith* (Boston Psychopathic Hospital).

1772. **Lord, J. R.** Epilepsy; a clinico-pathological study of fifty cases. *J. Ment. Sci.*, 1925, 71, 240-253.—"A study of the epileptic seizure would persuade us that it is symptomatic of a great brain storm in which more or less all parts of the brain are involved. These seizures occur typically in idiopathic cases. Storms of a very similar nature also occur in coarse lesion and other forms of epilepsy. Epileptic seizures are the manifestations of a cerebral explosion more as regards organized brain function, inherited and acquired, than a mere chaotic and haphazard explosion of cerebral matter. The neurons would appear to be associated during an epileptic fit as in the normal state. This is the most distinguishing feature of a true epilepsy as compared with Jacksonian attacks whose progression of symptoms is merely anatomical. In the former there remains the indissoluble union between the motor, sensory and mental functioning of the brain, making an epileptic a risky if not a dangerous member of society."—*E. F. Symmes* (Boston Psychopathic Hospital).

1773. **Mann, S. A.** Blood-sugar studies in mental disorders. *J. Ment. Sci.*, 1925, 71, 443-473.—This paper discusses blood sugar curves obtained in various cases of mental disorder, and attempts to explain if possible the cause of the disordered carbohydrate metabolism as shown by a sustained hyperglycaemia following glucose ingestion. The curves were taken "following glucose dosage in 152 cases of early mental disorder." The liver has at times been thought to account for the abnormality. The present investigations "tend to absolve it from blame in this direction." The author considers there is a tendency to overestimate the importance of the endocrine glands in explaining the disordered sugar metabolism. It appears that where there is sustained hyperglycaemia there is no hepatic inefficiency "and the cause of the hyperglycaemia may be defective pancreatic reaction." When adrenalin is absent from the blood it is impossible "to arouse hyperglycogenolysis by stimulation of the nerve supply to the liver." Probably the cause of the hyperglycaemia in the majority of mental cases "showing defective storage mechanism, may be depression of the pancreatic function, probably induced by change in the ionic state of the organism." From a practical standpoint treatment which can be found to bring the sugar curve nearer to the normal can be associated with clinical improvement.—*P. McClenen* (Boston Psychopathic Hospital).

1774. **Mann, S. A.** The investigation of a series of cases of early mental disorder by the laevulose test for liver glycogenic efficiency. *J. Ment. Sci.*, 1925, 71, 474-482.—The laevulose test for liver glycogenic function has been



tried on numbers of normal and insane and uncertified cases of mental disorder. This was done as a result of earlier investigations in early mental disorder for defects of carbohydrate metabolism by a study of blood sugar curves following glucose ingestion. The results of this investigation seemed to show an abnormally sustained hyperglycaemia in many cases. It was thought that the laevulose test applied to these cases might explain these findings. It is found that there is no relation between the blood sugar curve following glucose ingestion and laevulose test. The blood sugar curve is found to vary in the normal more than previously reported. Only two positive reactions occurred among the 55 cases of early mental disorder. None of the cases showed clinical evidence of hepatic disturbance.—*P. McClellenn* (Boston Psychopathic Hospital).

1775. **Mayer, E. E.** *The problem of psychoneuroses.* *Amer. J. Psychiat.*, 1925, 4, 419-430.—Upon the setting of certain patients' psychic reactions, and visualizing some valuable fundamental conceptions, the author concludes that minor behavior disorders which are not on the higher level of distortions (considered under psychoses) are conveniently grouped together as psychoneuroses. Emotional experiences, arising from without our body, and anything within our body may affect our reactions. Settling of emotional factors and physical disorders dissolves the conflict and brings about adjustment. In the former an understanding of one's fears and impulses is necessary; and for finding a reasonable basis for the presenting of symptoms a certain "level of mind" must be reached. Psychoanalytic interpretations may be ignored as many of them are not soundly established and are not apparently reasonable. The "middle-of-the-road" attitude in dealing with the patient's problems is justified by the fact that one's mind is limited to those interpretations of the facts which it can accept as valid. The "invalid habit" necessitates "vigorous combating by measures fitting in with the disposition, capabilities, economic status and interests of each patient."—*G. Stowell* (Boston Psychopathic Hospital).

1776. **McAlister, W. M.** *The results of the treatment of general paralysis by malaria.* *J. Ment. Sci.*, 1925, 71, 236-240.—A report of 12 cases suffering from general paralysis treated by inoculation with malarial blood derived direct from a case of malaria. No patient died from malaria. Improvement was most marked in early cases of general paralysis, unfolding gradually and reaching a condition which depended largely upon the stage of the disorder at which the remedy was applied. The three who died following temporary improvement were not such as to affect the results, one succumbing to intercurrent disease, the other two several months following inoculation. Many physical signs were only slightly modified. On the mental side, however, signs of improvement were most obvious and sometimes really impressive. Some cases were benefited to a lesser degree, the condition resembling more or less the state of affairs existing in a natural remission; yet it is no mean achievement to have produced this by artificial means. But inasmuch as general paralysis even in its early stages involves some degeneration of cerebral tissue, a complete cure would seem improbable.—*E. F. Symmes* (Boston Psychopathic Hospital).

1777. **McCord, C. P.** *Social psychiatry—its significance as a specialty.* *Amer. J. Psychiat.*, 1925, 5, 233-240.—The applications of psychiatry to education, child guidance, social welfare, and conduct disorders in general are some of the important phases of the special branch of general psychiatry which is termed social psychiatry. The many appeals to psychiatry for help in the solution of problems having social complications indicate the need of a special training in this particular phase. A study of the curricula of many of our leading medical schools shows that general psychiatry has a relatively unimportant place and that almost no provision is made for instruction and clinical demonstrations in social psychiatry. As a result many psychiatrists are not adequately equipped



to meet the various demands from educational, industrial and social fields. There is a serious shortage of specialists in social psychiatry. A course in social psychiatry for medical schools is outlined, the main features of which include lectures, visits to local social welfare organizations (including schools and courts), demonstration clinics in connection with various types of institutions, and intensive study of the social aspects, organization administration, diagnostic technique, types of treatment, reeducation, and institutional placement of particular cases.—*E. Beckwith* (Boston Psychopathic Hospital).

1778. **McCowan, P. K., & McCowan, M. S. A. Typhoid carriers in mental hospitals.** *J. Ment. Sci.*, 1925, 71, 93-97.—The investigation of mental hospital cases whose histories indicated any suspicion of previous enteric fever led to the discovery of a number of "carriers." "The importance of periodic and persistent bacteriological examinations of the excreta of suspected cases was shown by the fact that the 'carriers' were mainly of the intermittent type, and typhoid bacilli were isolated only after repeated examinations. The treatment of these cases presented a very difficult problem, the only prophylactic measures possible being general inoculation and segregation of 'carrier' cases. The latter measure conferred some hardships on the patients if varying mental types had to be warded together; it also presented administrative difficulties."—*E. F. Symmes* (Boston Psychopathic Hospital).

1779. **McCowan, P. K. Laboratory aids to diagnosis in mental diseases.** *J. Ment. Sci.*, 1925, 71, 192-218.—Laboratory tests in the diagnosis of mental disorders are of undoubted value, but a diagnosis made solely from certain recognized reactions to laboratory tests should not be countenanced without an exhaustive clinical examination. The studies made on 300 mental cases seemed to justify some quite definite conclusions regarding the laboratory and clinical examinations of patients. Routine Wassermann examination was recommended, and cerebrospinal fluid examination for diagnosis of syphilis of the central nervous system. Fluid examination should consist of several tests for accurate diagnosis. Negative Wassermann reactions where the clinical picture suggests syphilis should be repeated, preferably after a provocative dose of a salvarsan preparation. Thus laboratory methods and clinical observation are fundamentally complementary.—*E. F. Symmes* (Boston Psychopathic Hospital).

1780. **McCowan, P. K. The physico-psycho-galvanic reflex in the neuroses and psychoses.** *J. Ment. Sci.*, 1926, 72, 492-503.—"The galvanic reflex is an inevitable response, and, alone of all such responses which can be studied objectively, it is specific to 'noxious' stimuli. By virtue of this characteristic it becomes a most important objective method of investigation into the neuroses. Reaction times as obtained in word-association tests can be exceedingly misleading as 'complex' indicators, but taken in conjunction with the galvanic reflex, simultaneously obtained, can give valuable information. A study of the galvanic reflex suggests that the various neuroses are not definite entities but merely clinical syndromes. Three types of affectivity which cannot be diagnosed clinically with any certainty are found in the neuroses: (a) increased affectivity, (b) diminished affectivity, (c) affectivity, otherwise normal, increased to special complexes. The large majority of hysterics have diminished affectivity, and it is suggested that their symptoms are due to the failure of their diminished emotivity to act as the mainspring of their volition. In anxiety neurotics increased emotivity is usually present, but there are many exceptions to this rule; these exceptions are very closely allied to and might well be classed with the hysterics. The symptoms of these patients with increased emotivity is due to their exaggerated emotional reactions making them attach undue importance to their experiences in accordance with their excessive emotions. The affectivity varies in different cases of dementia praecox, but in the present series all hebephrenics showed increased affectivity."—*E. F. Symmes* (Yale).

1781. **McWilliam, W.** The sensitivity of the sympathetic nervous system to adrenalin in some cases of mental disorder. *J. Ment. Sci.*, 1925, 71, 432-438.—This paper describes a number of patients suffering from a variety of mental disorders, with regard to their reaction to subcutaneous injections of adrenalin. Certain conclusions are reached. "The reaction to adrenalin corresponds to the excitability of the sympathetic nervous system, and the degree of emotional instability or of emotional defect. There exist 'negative' states of depression which arise from inexcitability of the sympathetic. Certain unknown factors, other than those of small dosage, and histamin or cholin content of animal tissues, can cause a depressor adrenalin reaction."—*P. McClennen* (Boston Psychopathic Hospital).

1782. **Moersch, F. P.** Psychic manifestations in cases of brain tumors. *Amer. J. Psychiat.*, 1925, 4, 705-724.—It is commonly known that practically all patients afflicted with brain tumor have mental symptoms at some period of the disease, that such symptoms are extremely variable, and that marked fluctuations may occur in any given case. There are certain psychic phenomena accompanying brain tumors which are of considerable aid in diagnosis. In any plan for the study of mental status in cases of brain tumor there are four problems presented: the location of the tumor, the time in the development when the patient is seen, the observation made and the mental condition at the time, and the type of lesion. The psychic changes in brain tumors, it will be found, tend to arrange themselves in three groups: (1) the general symptoms, which are vague and difficult to interpret; (2) the specific mental reactions, which suggest a frontal lobe lesion, and (3) the associated mental reactions, in which direct relationship to brain tumor is difficult to establish. Undoubtedly the changes which are occasioned by new growths in the brain are likely to precipitate psychic alterations, and in conclusion it may be said that psychiatric examination of cases in which brain tumor is suspected is of considerable aid.—*G. Stowell* (Boston Psychopathic Hospital).

1783. **Munck, W.** Subarachnoid hemorrhage from a medico-legal point of view. *J. Nerv. & Ment. Dis.*, 1927, 65, 484-496.—Nine cases are on record of sudden death caused by subarachnoid hemorrhages. It is difficult to determine whether the hemorrhage is spontaneous or of traumatic origin, and for this reason very reliable anamnestic data should be gotten in order to make certain that a traumatism is really responsible for the hemorrhage. In most cases it is impossible to detect the starting point of the hemorrhage. As a complication of other cranial or cerebral lesions subarachnoid hemorrhages represent a greatly exacerbating factor.—*E. C. Whitman* (Boston Psychopathic Hospital).

1784. **Norbury, F. P.** Seasonal climatic curves, their relation to neuropsychiatry. *Welfare Mag.*, 1927, 18, 356-370.—Mental disorders occur in seasonal curves. The typical curve shows an upward trend from January or February and reaches a maximum in June. Then follows a downward trend until September or October and an autumnal curve with a maximum in November. The clinical pathology of mental disorders both major and minor is found in the exhaustion of the cell. Climate exhausts the reserve potential energy, following the depletions of illnesses and the stresses of winter; a lag is shown, representing a further reduction of the vitality and energy of the individual. The result may be mental disorder. The curves of mental disorder closely approximate those found by Huntington for physical and mental efficiency as dependent upon season and climate.—*G. J. Rich* (Institute for Juvenile Research).

1785. **Oliver, J. R.** The psychiatry of Hippocrates. A plea for the study of the history of medicine. *Amer. J. Psychiat.*, 1925, 5, 107-115.—The old masters were experts in the power of observation. They recognized and described many of the psychic disturbances which have only been rediscovered re-

cently. Also the treatment which they offered has the same basic foundation as has the treatment of today. In particular it is to be noted that these founders of medicine considered the organism as a whole; to them bodily and mental symptoms were inter-related and interactive. Emphasis was never laid on the symptoms that a patient presented, but rather on the patient that exhibited the symptoms. And finally they never wearied, especially in mental cases, of insisting on the duty of sparing the patient as much discomfort and pain as possible. The motto of Cos was "to help as much as possible, but at least to do no harm."—*G. Stowell* (Boston Psychopathic Hospital).

1786. **Orton, S. T. Negative histological findings in experimental organic processes.** *Amer. J. Psychiat.*, 1925, 4, 599-604.—"Experiments are recorded which indicate that certain organic disturbances which probably cause death through their attack on the nervous centers, leave no consistent structural alterations in the nerve cells as studied by the methods usually applied to human material. Emphasis is laid on the fact that our concept of the organic must be large enough to include many processes which do not result in demonstrable structural lesions and that current negative findings in such a disease as dementia praecox, for example, should not serve to deter further investigation with the organic approach."—*G. Stowell* (Boston Psychopathic Hospital).

1787. **Osnato, M. Industrial neuroses.** *Amer. J. Psychiat.*, 1925, 5, 117-131.—The problem of industrial neuroses is very important from economic and public health standpoints. From the viewpoint of the employer there are few other medical or surgical conditions which compare, so far as duration of disability is concerned, with the problem presented by duration of the post-traumatic psychoneuroses following injury. Psychoneuroses to the workman are a potent source of unhappiness for himself and family. A case is cited of an actor taking part as a soldier in a trench scene who became emotionally affected and developed all the symptoms of shell shock. This patient responded to treatment quite satisfactorily until one day when he had spoken with a lawyer; from then on he did not improve so rapidly and professed various complaints. He also wondered "if the Company would do the right thing by him." After several long talks with the patient during which his entire illness was set before him, as well as the fact that he was entitled to every protection and aid under the Compensation Law, he was finally discharged well and able to return to work. One of the biggest factors which tends to keep the neurosis of these cases alive is the sympathy of friends and relatives. Another factor is often that these persons get secret delight in receiving attention from many important men. The study of personality is of extreme importance, as can be seen by comparing the skilled worker with the ordinary day laborer. The two most important groups of patients from the industrial surgeon's viewpoint are those suffering from traumatic hysteria and traumatic (or fear) neurosis. The former are the most difficult to readjust for they are often of the poorer type and see in their condition some hope of personal gain. The latter are usually of the intelligent, efficient and well trained group. The reaction of these is almost wholly an organic one. They show a very definite tendency to get well and are quite anxious to coöperate with treatment.—*G. Stowell* (Boston Psychopathic Hospital).

1788. **Peck, M. W. Mental examinations of college men.** *Amer. J. Psychiat.*, 1925, 4, 605-621.—The following conclusions were made by the author from the results of mental examinations given to college men, though it should be noted that most of it was done with men over 22 years of age, and it is possible that undergraduates would be less interested and coöperative. "(1) Routine mental examinations can be advantageously applied to college students as a supplement to other medical and psychological studies. Such examinations should cover at least an hour, with extra time given to men in special need. (2) Ex-

aminations of this nature should contribute something worth while to nearly every man, and in conditions of faulty mental hygiene and the minor neuroses, there may be results of great value from both prophylactic and therapeutic standpoints. (3) The proportion of college students suffering from personality disorders and functional nervous illness is large. (4) These conditions appear to bear little relation to general physical health. (5) The majority of students are interested in self-study and self-understanding and will give kindly reception to intelligent teaching along such lines. (6) A considerable number of men, if given opportunity, will come forward voluntarily to discuss their problems."—*G. Stowell* (Boston Psychopathic Hospital).

1789. **Pollock, H. M.** *Mental disease in the United States in relation to environment, sex, and age.* *Amer. J. Psychiat.*, 1925, 5, 218-231.—A statistical study based on the census of hospitals for mental disease in the United States, taken Jan. 1, 1923. The series of charts presented deals with rates of first admissions to institutions for mental disease from urban and rural communities in the United States. The rates in all cases are based on the general population of the same environment, sex, and age. Each chart contains a separate curve for rural males, rural females, urban males, urban females. A chart is presented for each principal group of psychoses, including senile psychoses, cerebral arteriosclerosis, general paralysis, alcoholic psychoses, dementia praecox, manic-depressive, involution, psychoneuroses and neuroses. It is clearly shown on these charts that each of these psychoses has its characteristic age and sex curve and that there is a wide variation between the curves. In every group the urban rate for both male and female is considerably higher than the rural. The writer feels that mental disease will be largely a city problem in the future.—*E. Beckwith* (Boston Psychopathic Hospital).

1790. **Pollock, H. M.** *Educational principles in occupational therapy.* *Occup. Therap. & Rehab.*, 1927, 6, 99-104.—In mental hospitals the occupational therapy department deals with readjustment of individuals whose lives have become disorganized, so as to set them going again in normal channels. Many of the conventional educational principles are applicable in this situation, such as learning by doing, learning by immediate contacts with materials and objects, and learning by drill. One of the most crucial features for the occupational therapist is the arousal of interest. Frequently the interest in planning and anticipating is the best lead for the therapist. Anything in the line of self-realization of the individual likewise arouses interest; he derives satisfaction from expressing his own ideas in any simple thing that he may design. The type of costume worn in many state hospitals is worth consideration from the psychological standpoint. In some cases it is found helpful to exclude mirrors from the day rooms, so that the patients do not have attention called to their nondescript dress. In some cases it might be helpful to have the patients make some of their own clothing, because of the therapeutic value of the project and also the greater satisfaction that would be obtained from wearing a slightly different costume from that furnished by the hospital. Another motive that is sometimes utilized is interest in children, as when the patient is encouraged to make toys, doll houses and children's games. The fundamental principle seems to be that each patient should be treated as an individual and not merely as one unit of a large group. In some cases the patients may have at least an interesting existence, and even a really good time, while getting well.—*H. E. Burt* (Ohio State).

1791. **Potter, H. W.** *Mental deficiency and the psychiatrist.* *Amer. J. Psychiat.*, 1927, 6, 691-700.—Institutions for mental defectives are inadequate in number, and many of them have inadequate financial appropriations and inadequate personnel. As these institutions are the centers from which originate



and radiate specialized methods of care, training, treatment and prevention, neglect of the field of mental deficiency is holding back the development of this important branch of psychiatry. The mental defective is one who, because of a defect of development, does not possess progressive adaptability to a degree sufficient for social and economic adequacy. The approach to the diagnosis of mental deficiency is a diagnosis by exclusion, and should include a carefully taken history, physical examination, and talk with the patient. Psychometric tests should be used with discretion because emotional factors may enter into the results. Etiologically considered, defectives are divided into the following groups: (1) the "freaks of nature," (2) the familial feeble-minded, (3) cases of endocrine dysfunction, and (4) the traumatic; the author proposes a fifth group, one of psychogenic origin—cases in which the picture may be compared with that of the rapidly deteriorating adolescent, showing motor stereotypy, such as that associated with reversion.—*B. Kendall* (Boston Psychopathic Hospital).

1792. **Potter, H. W.** *An introductory study of the erotic behavior of idiots.* *J. Nerv. & Ment. Dis.*, 1927, **65**, 497-507.—The writer gives the results of a study by objective methods of 398 idiots of both sexes in an institution for mental defectives. Nearly three-quarters of the entire group showed the presence of erotic desires, which were manifested by a larger percentage of females than males, and were present in a larger proportion of the adolescents. Nearly four-fifths were auto-erotic only. This study shows that the sexuality of idiots is no more organized than their primitive intelligence. It shows the biological law of survival of the fittest, the lack of procreational urge apparently having been provided to insure the dying out of the stock.—*E. C. Whitman* (Boston Psychopathic Hospital).

1793. **Pratt, G. K.** *Mental hygiene for the feeble-minded.* *Survey*, 1927, **58**, 96-98.—Feeble-minded children, like those of normal intelligence, should be taught to face reality squarely. This lesson, above all, will safeguard them from psychoneurotic illness or distortion of personality. In particular, they must be trained to avoid excessive day-dreaming, and methods for accomplishing this goal are suggested. In addition, the feeling of inferiority should be dispelled so far as possible. The intellectually inferior child can be shown that he is not inferior in everything, even if he does not do so well in school.—*G. J. Rich* (Institute for Juvenile Research).

1794. **Rees, T. W., & Gostywyck, C. H. G.** *Observations on delinquent mental defectives.* *J. Ment. Sci.*, 1925, **71**, 41-47.—The writer divides the delinquent mental defectives into three groups: (1) simple mental defectives; (2) mental defectives with abnormal emotional instability; (3) mental defectives with psychoses or psychoneuroses. In the first group the individuals may be regarded from the standpoint of behavior as adolescents and adults with the intellectual level of their age but possessing only the degree of control properly pertaining to children of their class and experience. A sense of inferiority because of their defective endowment is also often compensated for by antisocial attitudes. Institutional training is of great value in their care. The second group present a most important behavior problem. Even though equipped to some degree with reasoning ability and judgment, the case histories show repeatedly inability to cope with social situations. The third group includes all cases showing a persistent or recurring psychosis or psychoneurosis superimposed on mental deficiency. Intellectual deficiency is not always apparent and the apparent defect may possibly be due to an early dementia. In all these groups antisocial conduct has been of such a degree that detention is required for the protection of society, but it is desirable to give place to the relative importance of mental disorder and mental deficiency in determining the cause of criminal conduct in mental defectives.—*E. F. Symmes* (Boston Psychopathic Hospital).

1795. **Richards, E. L.** Inadequate health. *Welfare Mag.*, 1927, 18, 271-283.—There has been a widespread tendency both among physicians and among those who deal with social problems to ignore such conditions as faulty adaptation and maladjustment. Only in recent years has it been recognized that the health of an individual, as well as the health of a community, includes normal mental adjustments. In treating disturbances of behavior it is not possible to discount the rôle of inheritance, nor to attribute all difficulties to an inherited constitution. A middle ground is to analyze the influences acting in each case into factors of inherited constitutional equipment and factors acquired from environment and training. The complete and detailed examination of a case makes it possible, from this point of view, to estimate the modifiable and unmodifiable material in the individual or family group under consideration and to plan a suitable treatment. Illustrative cases are cited.—*G. J. Rich* (Institute for Juvenile Research).

1796. **Riggs, A. F., & Terhume, W. B.** The psychoneuroses—a problem in re-education. *Amer. J. Psychiat.*, 1925, 4, 408-417.—The authors describe the methods employed in the treatment of 2000 psychoneurotics. All physical examinations were essentially negative and it would seem that nervousness is a disorder of the personality. In treatment there are three points of attack—temporary environmental change, medical treatment for physical difficulties and re-education regarding emotional difficulties. A definite technique of physical and mental re-education was evolved, which seemed especially applicable to the nervous patient. This technique is fully described. The re-education consisted of a series of conferences in which the discussions graded from the physical adaptation, through psychoneurotic disorders, to instruction to the patients, particularly on the importance of rest. A resumé of the results shows that 84.3 per cent were restored to usefulness, of which 34.3 per cent were entirely cured. The slightly improved were 10.9 per cent while only 4.8 per cent remained unimproved.—*G. Stowell* (Boston Psychopathic Hospital).

1797. **Robbins, S. D.** Stammering and its treatment. Boston: Boston Stammerers' Institute, 1926. Pp. 121.—A book written primarily for those who stammer and for parents of children who suffer from defects of speech. The physiological cause of stammering is said to be the congestion of blood in the brain during emotional states such as embarrassment, confusion, over-eagerness, and the like. Prevention is easy, cure difficult. A series of exercises is given, designed to produce habits of relaxation, particularly in the muscles of the vocal apparatus, and to afford practice in correct enunciation. Auto-suggestion and conscious relaxation are advocated as means of abolishing fear.—*D. L. Bidwell* (Illinois).

1798. **Robertson, G. M.** The prevention of insanity. A preliminary survey of the problem. *J. Ment. Sci.*, 1926, 72, 454-491.—A comprehensive review of the field of mental disorder from a statistical standpoint, discussing distribution, causes, symptoms, and treatment. The program outlined for prevention of insanity lays emphasis on intensive study of individual cases, eugenics, mental hygiene of childhood and adolescence, prophylaxis and early treatment of attacks, temperance in alcohol, and education concerning treatment of syphilis. That insanity is not on the increase seems consistent with statistical data, although any apparent decrease may be due in part to the newer and different means of handling the problems of mental disorder.—*E. F. Symmes* (Yale).

1799. **Robertson, I. M.** Vasomotor reactions in mental disorders, with special reference to the haemoclastic crisis. *J. Ment. Sci.*, 1925, 71, 386-409.—This paper describes the results of investigations of the occurrence of the haemoclastic crisis in some normal healthy adults, and some patients in hospitals, definitely or probably psychotic and neurotic. The haemoclastic crisis is character-

ized by leucopenia, fall of blood pressure, inversion of the leucocytic formula, hypercoagulability of the blood and diminution of the refractive index of the serum. To produce the haemoclastic crisis, milk is given to the patient, and before and afterwards the leucocytes are noted. Results show that the haemoclastic crisis does not occur in healthy subjects, but does in a large percentage of psychotics. Most of the neurotics other than those suffering from anxiety neurosis give a normal response to ingestion of milk. The change is not entirely peripheral as is shown by the fact that simular leucocytic changes occur in the venous blood, though the change may be primarily peripheral. The paper also describes investigations to determine the effect on the leucocytes of various physical and chemical stimuli, and to ascertain if possible the factors which govern the production of the haemoclastic crisis and its mechanism.—*P. McClennen* (Boston Psychopathic Hospital).

1800. **Rudolf, G. de M.** **The malarial treatment of general paralysis; some psychological and physical observations.** *J. Ment. Sci.*, 1925, 71, 30-40.—The series of cases reviewed included those with histories of general paralysis of both long and short duration, and in both physical improvement occurred in every patient treated. The marked mental improvement was found, however, in the more recent cases. Delusions of grandeur showed a marked tendency to disappear, and where the delusions were of a quantitative nature, these became progressively smaller. An abnormal desire to escape appeared in the males, which, however, seemed to pass off gradually. A common feature of the post-malarial stage of the treatment is an amnesic period referring to the time when the patient was acutely ill mentally. This may terminate, nevertheless, several months after the cessation of the rigors, and the patient regain these former memories. As a general rule, the delusions are not remembered once they have disappeared. A more normal feeling of pronounced health different from the common euphoria was observed. Physically the general appearance of the patients improved after the rigors; complexion after successive changes was replaced by a more normal color. Irregularities of temperature noted prior to treatment usually disappeared. Little or no weakness was seen in patients comparatively strong before the onset of the rigors, but bodily weight did not increase once the loss due to rigors had been made up. Many patients became willing workers after treatment. Neurologically in many cases tremors became less marked, speech less slurred. Eight cases showed pupillary changes. Incontinence present in some patients during the rigor ceased with the ending of the rigors and every case of incontinence previous to treatment gained complete control following the rigors. Seizures occurred in only a few cases, these patients having histories of long duration of the disease before treatment.—*E. F. Symmes* (Boston Psychopathic Hospital).

1801. **Sands, I. J.** **Intraventricular hemorrhage. A clinical and pathological study of three cases.** *J. Nerv. & Ment. Dis.*, 1927, 65, 360-372.—A discussion of the clinical findings and the postmortem examination of the brains of three cases. Premonitory symptoms of intraventricular hemorrhage seem to be wanting. "The acute onset of cranial symptoms in a man of known cerebral arteriosclerosis or suspected intracranial aneurism with the early appearance of coma, the persistent bloody spinal fluid, the presence of repeated tonic spasms of the entire somatic musculature with the absence of the classical signs of paralysis, should lead to the diagnosis of intraventricular hemorrhage."—*O. W. Richards* (Boston Psychopathic Hospital).

1802. **Simon, A.** **Der Umfang des Beachtens bei einem Schwachbefähigten.** (The range of apprehension in a defective.) *Zsch. f. Kinderforsch.*, 1925, 30, 282-299.—The communication is a part of a Viennese dissertation; "On psychic disturbances in a defective," which reports on a 12-year-old boy with

a disorder of attention, in whose case the perception of form (drawing a sketch of an ornament consisting of several elements) was very impaired, showing itself in the small number of correctly apprehended elements, and upon repetition in the inability to retain that which had already been grasped and to associate with it that which was new.—*A. Argelander* (Jena).

1803. **Thom, D. A.** **Infantile convulsions: their frequency and importance.** *Amer. J. Psychiat.*, 1927, 6, 613-622.—Infantile convulsions occur, in an unselected group of 1739 children studied, once in every 14 cases. 29% of 265 having convulsions are either mentally retarded or epileptic. The pathological, physiological, or psychological factors with which the first convulsion is associated seem to have no prognostic value. Convulsions without definite etiology are invariably more significant. In a fairly large group the convulsion is but a symptom of an unstable nervous system, and in another group it is a symptom of an undiagnosed meningitis or encephalitis. The convulsion itself, though not associated with such disease, may produce irreparable brain damage, as seen in some spastic conditions and in mental deficiency. Convulsions associated with rickets and tetany may leave behind very definite damage to the nervous system. If a greater effort were made to prevent the occurrence of the infantile convulsions associated with rickets, gastro-intestinal upsets, and acute infections, much epilepsy and mental deficiency might be prevented.—*B. Kendall* (Boston Psychopathic Hospital).

1804. [Various.] **Report of symposium on the definition and diagnosis of moral imbecility, 8th March, 1926.** *Brit. J. Med. Psychol.*, 1926, 6, 219-227.—A valuable discussion of a diagnostic term which will cover those cases of juvenile mental defect which are not readily termed feeble-mindedness and cannot be so certified. It is a puzzle to magistrates how to deal with moral defects which occur in children not considered feeble-minded, and which may be the precursory signs in them of dementia praecox or which may be actually psychoneurotic in character. The term "moral imbecile" was debated as a useful or harmful way of legally defining this type of problem child. No definite consensus of opinion was arrived at by the group which discussed the question.—*N. Fenton* (Ohio).

1805. **Ward, J. F., & Patterson, H. A.** **Protein sensitization in epilepsy.** *Arch. Neur. & Psychiat.*, 1927, 17, 427-443.—(1) In a study of the occurrence of protein hypersensitivity in 1,000 epileptic patients and in 100 non-epileptic controls, the incidence of protein sensitization in the Craig Colony group was found to be 37 per cent. (2) Protein sensitization was manifested in 56.8 per cent. of the 500 patients examined in the New Jersey State Village for Epileptics. (3) In the non-epileptic control group, 8 per cent. showed positive reactions. (4) On the average, the percentage of patients hypersensitive to protein is higher in epileptic than in non-epileptic groups. (5) The significance of this ratio remains to be determined. (6) Raw protein extracts were employed in this study. (7) The problem of protein sensitization in epilepsy invites further investigation, in which the use of cooked protein extracts should be included. (8) In general, the treatment for this condition consists either in restriction of the diet or in desensitization. (9) The early recognition of the hypersensitive state is important from the standpoint of possible prophylaxis.—*I. Rappoport* (Boston Psychopathic Hospital).

1806. **Werner, S.** **Einige klinische Sanocrysinversuche bei Augentuberkulose.** (Some clinical sanocrysin experiments on tuberculosis of the eye.) *Acta Ophth.*, 1926, 3, 245-253.—Ten cases of tuberculosis in various parts of the eye treated by sanocrysin, with negative results in general.—*M. L. Reymert* (Wittenberg).

[See also abstracts 1663, 1681, 1684, 1832, 1851.]



## SOCIAL FUNCTIONS OF THE INDIVIDUAL

1807. **Boynton, P. L.** Mental development of twelve year old boys in the Kentucky houses of reform. *J. Delinq.*, 1926, 10, 532-534.—Twenty-one twelve-year-old boys in the Kentucky Houses of Reform were tested with the Stanford and Herring Revisions of the Binet tests. The average I.Q. was 69, the range being from 47 to 87. All of the I.Q.'s fell within the limits of those for the lowest quartile of the general population. The significance of these results for reform-school curriculum and general administration is pointed out.—*H. L. Koch* (Texas).

1808. **Brandell, G.** Svensk folkpsyke och svensk skola. (Swedish mind and Swedish education.) *Arkiv f. Psykol. o. Ped.*, 1927, 6, 1-19.—A discourse upon Swedish folk and racial psychology as expressed primarily in the educational system and institutions of the country. Discussing Berquist, Geyer, Sunberg and several anthropologists, the writer endeavors to throw light upon individual, social, political and national traits in the modern Swede.—*M. L. Reymert* (Wittenberg).

1809. **Freden, G., & Robbins, C. L.** The prison school. *School & Soc.*, 1927, 25, 577-582.—Statistics are given on the objectives and administration of 36 prison schools in the United States.—*H. L. Koch* (Texas).

1810. **Friedrichs, G.** Die drei mythischen Hasen und ihre Verwandten an Kirchen und anderen Gebäuden und Hasen in Märchen und Sagen. (The three mythical hares and their variations on churches and other buildings, and hares in fairy tales and fables.) *Mannus*, 1927, 18, 339-348.—A description, with 12 illustrations, of three hares running rapidly in a circle, a device often seen in old windows and on old buildings. The three hares, because their ears make an equilateral triangle, have been interpreted to signify the trinity. Friedrichs thinks this is a comparatively late interpretation and one that does not explain their primitive origin because "hares' ears are not the best way of making a triangle." In his opinion the hares are symbols of the moon used before the Christian era. He quotes a letter written in 600 A. D. by Pope Gregory the Great to Abbot Mellitus, in which the latter is told not to destroy heathen buildings but to sprinkle them with holy water and continue to use them so that the Saxons will feel comfortable since they are worshipping in their accustomed places. Friedrichs believes that the three hares originated in a heathen temple taken over thus by Christians and so came over to modern times. He gives a summary of many folk tales which interchange the moon and a hare.—*E. A. Gaw* (Mills).

1811. **Groves, E. R.** The psychology of the woman who works. *Family*, 1927, 8, 92-97.—"The woman of character who by free choice publicly admits that, though she is happy in her home and willing to undertake its management, the family task is not a complete means of satisfying her desires, any more than it would be in the case of men required to assume the management of the household, helps to bring social thinking regarding the home to the level where women may have in fuller measure the expression of their finer selves without the race being left for its perpetuation to women of an inferior type who are content to become servants and breeders."—*G. J. Rich* (Institute for Juvenile Research).

1812. **Klüver, H.** Psychological and sociological types. *Psychol. Rev.*, 1924, 31, 456-462.—The use of social data for purposes of classification into types complicates the problem of the psychologist. A distinction between sociological types, as in the case of criminal psychology, and the more purely psychological types is necessary. Klüver has based his discussion of the relation between these two types largely upon A. Kronfeld's *Das Wesen der psychiatrischen Erkenntnis*.—*P. T. Young* (Illinois).

1813. **McLaughlin, M.** *Office of the Public Defender of Los Angeles County. J. Delinq.*, 1926, 10, 500-503.—The *modus operandi* of the office of Public Defender in various localities in the United States is described. Arguments and foreign precedents are presented for this office, which is designed to protect the poor and ignorant in the courts of law.—*H. L. Koch* (Texas).

1814. **Orbison, T. J.** *Drug addiction and its relationship to crime. J. Delinq.*, 1926, 10, 525-531.—A plea is made both for a rehabilitation farm for drug addicts and for a well supported attack upon the drug dealers. The cost of drug addiction to the state of California in money, crime, and loss of human energy is estimated and compared with the relatively trivial cost of adequate preventive and curative measures. The ineffectiveness of most of our present "drug cures" can be judged by the great recidivism of those addicts who come in contact with the law.—*H. L. Koch* (Texas).

1815. **Wallis, W. D.** *An introduction to anthropology.* New York: Harper, 1926. Pp. xvi + 520. \$3.75.—A complete and scholarly outline of all the main divisions of anthropology. There are many facts and few generalizations, except those quoted for illustrative purposes from other sources. The book is divided into 5 parts: physical anthropology; prehistoric man; economic and industrial activities; science, magic, and religion; social morphology and culture. The facts presented in each field are emphasized by specific illustrations gathered from various primitive peoples and localities. The conclusion cites a number of problems which the study of anthropology calls forth, and gives a brief narrative summary of the facts stressed in the book. A bibliography is given at the close of each chapter.—*M. Goodrie* (Clark).

1816. **Young, K.** *Parent-child relationship: projection of ambition. Family*, 1927, 8, 67-73.—In a family the ideal interrelationship, in which each member influences and is influenced by every other member, rarely exists. The natural circularity of response is broken by attitudes of authority, domination and sense of superiority of parents toward children. The father or mother commands; the child obeys. Very little reciprocal stimulation is permitted. If the parent has harbored some unfulfilled desire or ambition for fame, money, education, social prestige, or what-not, he or she projects this ambition upon one or more of the children. The parent tries to live in the children, instead of allowing them to develop their own desires and ambitions. The projection occurs most frequently from father to son and from mother to daughter.—*G. J. Rich* (Institute for Juvenile Research).

[See also abstracts 1667, 1711, 1719, 1720, 1721, 1730, 1731, 1740, 1745, 1760, 1763, 1766, 1777, 1788, 1789, 1794, 1795, 1804, 1829, 1831, 1834, 1848, 1850.]

#### INDUSTRIAL AND PERSONNEL PROBLEMS

1817. [Anon.] *Tinkering with the personnel machine of the U. S. government. Pub. Person. Stud.*, 1927, 5, 46-50.—The sixty-ninth session of Congress passed a bill bringing prohibition officers under the merit system, but failed to finance the tests necessary for this purpose. Tests to be given in coöperation with the Civil Service Commission were authorized for selecting employees of the new foreign commerce service of the Bureau of Foreign and Domestic Commerce. The conclusion from inspection of the long list of other proposed bills affecting the federal personnel system is that the situation is in almost hopeless confusion and that the remedies offered are haphazard and piecemeal.—*K. M. Cowdery* (Stanford).

1818. [Anon.] *Announcing and advertising tests for positions in the public service. Pub. Person. Stud.*, 1927, 5, 70-75.—Possibilities and practices in

advertising tests for public service positions are discussed from the points of view of (1) legally regulated frequency, form, manner and content and announcement, (2) paid advertising not required by law, and (3) publicity through general news sources, training centers, and local civil service pamphlets.—*K. M. Cowdery* (Stanford).

1819. **Bureau of the prevention of industrial accidents, Ordnance Department, Kure Naval Arsenal, Japanese Government. Study on industrial accidents and prevention.** 1925. (Not for sale.)—In the ordnance department, naval arsenal at Kure, Japan, 3,638 men, or 4.44% of the daily average number of men at work, met with industrial accidents during the fiscal year ending in June, 1922. During the next fiscal year 2,415 men, or 3.62% of the daily average number of men at work, were injured. Minimum numbers of accidents were reported in February and April, a little more in January, the maximum in August and September. The weekly distribution of accidents is as follows:

	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.	Total
Number	133	568	564	633	628	558	554	3638
%	3.6	15.6	15.5	17.4	17.3	15.3	15.3	100.0

As to the causes of accidents, out of 2,415 only 6 were traced to inadequate equipment; 754 were unavoidable; 1,655 were due to individual negligence. In regard to the relation between the length of service and accidents, those who had worked less than two years were injured most. As the length of service increases the number of accidents correspondingly decreases. The climate was found to be closely related to accidents; more accidents occurred on cloudy and rainy days.—*J. G. Yoshioka* (California).

1820. **Bureau of Public Personnel Administration Staff. Partially standardized promotion tests for police sergeant.** *Pub. Person. Stud.*, 1927, 5, 51-65.—Duties, qualifications and compensation of police sergeant are defined. Procedure for organizing and standardizing the tests is described as following suggestions from previous work with patrolman tests and from police officers and examiners. Distributions of scores on various trial groups are given. Reliability coefficients for sections of the test battery vary from .05 to .90, with total score reliability .78 to .87 for different groups. Validity determined by comparing total scores with rankings is indicated by coefficient .37. Parts of the test compared with Baltimore efficiency ratings showed validity coefficients .10 to .22. Abstract intelligence, as measured by Army Alpha, and physical condition are recommended as supplements to the specific police tests. Length of previous service is not recommended as an item of consideration.—*K. M. Cowdery* (Stanford).

1821. **Bureau of Public Personnel Administration Staff. Standardized tests of alphabetical filing and ability to understand and follow written directions.** *Pub. Person. Stud.*, 1927, 5, 80-88.—Two tests of ability to understand and follow written directions have been partially standardized. The so-called alphabetical filing test as finally revised was given to 442 individuals in high school and various business training schools, and to experienced clerical workers. An alternative form was given to 55 individuals in one school, yielding a reliability coefficient of .49. A time limit was found desirable. Ten forms of approximately equal difficulty are available. The Written Directions Test, as given to the same groups as the filing test, resulted in skewed distributions over a narrow range of scores, reliability coefficient of .26, and the conclusion that a 20-minute time limit is advisable. Ten forms, all suitable for self-administration, are available. The results of attempting to standardize the oral directions test are negative. No validity for either of the directions tests is quoted.—*K. M. Cowdery* (Stanford).

1822. **Mills, C. N.** *The year 1926 in the field of industrial relations.* *Pub. Person. Stud.*, 1927, 5, 76-79.—The status for 1926 of production, international labor relations, domestic labor disturbances, the Railway Labor Board, financial development of labor organizations, employee stock ownership, group insurance, the five-day week, and employee representation are outlined. The year, described as one of betterment of human relationships in industry, should lead to self-examination for the control and equalizing of human welfare.—*K. M. Cowdery* (Stanford).

1823. **Strong, E. K., Jr.** *Differentiation of certified public accountants from other occupational groups.* *J. Educ. Psychol.*, 1927, 18, 227-238.—An interest analysis blank, containing 263 items on which an attitude of liking, indifference, or disliking is to be expressed, was used to compare the interests of "the generality" with the interests of a specific group, here certified public accountants. The attempt in this investigation is to discover interests characteristic of this occupation. Only 20.5 per cent. of the generality fall within the distribution of certified public accountants. Furthermore, when other occupational groups are compared with the accountants, bankers are most like certified public accountants, having an overlapping of 74 per cent.; while artists and ministers have 0 per cent., authors 18 per cent., and teachers 17 per cent. "The data presented here and elsewhere indicated that members of each occupational group have characteristic likes and dislikes that distinguish them from other occupational groups."—*A. M. Jordan* (North Carolina).

1824. **Swift, E. J.** *How to influence men.* (2d ed.) New York: Scribners, 1927. Pp. xii + 407. \$3.00.—The first edition of the book appeared in 1925. The author states that his purpose is "to lay the foundation of salesmanship and management—to prepare the groundwork upon which a career must be built, and to show the human factors needed in its erection." The book treats the application of psychology to salesmanship and personnel management. The material is presented under the following chapter headings: the psychology of salesmanship; creative salesmanship; the strategy of salesmanship; the tactics of salesmanship; selecting salesmen; the psychology of personnel management; thinking as an asset in business; the psychology of managing men; the psychology of leadership; mental efficiency.—*J. R. Liggett* (Clark).

[See also abstracts 1787, 1844, 1863, 1864.]

#### CHILDHOOD AND ADOLESCENCE

1825. **Brown, A. W.** *The unevenness of the abilities of dull and of bright children.* New York: Bur. Publ., Teachers Coll., Columbia Univ., 1926. Pp. viii + 112. \$1.50.—On what intellectual level do cases of extreme specialization most often occur? This dissertation compares the specialization of bright and dull boys in three abilities. The subjects were 456 non-foreign, English-speaking boys, ages ten to thirteen, inclusive, from all grades of school in which they were found. Boys were chosen because the Stenquist Mechanical Tests were standardized for boys. The abilities studied were abstract or verbal intelligence, as measured by the Haggerty Intelligence Examination, Delta 2; non-language or non-verbal intelligence, as measured by the Pintner Non-Language Mental Test; and mechanical ability, as measured by the Stenquist Mechanical Aptitude Test, Form I, together with the Stenquist Mechanical Assembly Test, Form I. The scores on the Haggerty Delta 2 were used to classify the lower one-fourth as "dull" and the upper one-fourth as "bright." Distributions of scores, graphs, and reliabilities are reported. Intercorrelations indicate considerable independence of the three abilities tested, suggesting the need of a broader definition of



general intelligence than is implied in the inclusion of many current tests. Using modified T scores and comparing means for the four age groups of bright and dull boys, the author concludes that dull and bright boys show nearly equal unevenness with no significant differences for different age levels. The need for individual educational and vocational guidance is stressed. The bibliography gives forty-five references.—*J. C. DeVoss* (San Jose State Teachers College).

1826. **Hayashi, Y.** *On the sleeping hours of school children of 6 to 20 years.* *Jido Jatshi* (Child's Journal), 296, 1925.—5,558 school children in middle schools, girls' high schools, and elementary schools attached to normal schools located in 9 different cities representing different geographical areas of Japan were statistically studied as to their duration of sleep. The sleeping hours during a period of 7 days (April 24–30, 1923) of these children were averaged and tabulated as follows (sleeping hours are expressed in hours and minutes; thus 9:8 means 9 hours and 8 minutes):

Age	6-7	7-8	8-9	9-10	10-11	11-12	12-13
Boys	10:5	10:7	9:56	9:40	9:35	9:8	8:41
Girls	9:44	10:2	9:41	9:47	9:17	8:58	8:22
Age	13-14	14-15	15-16	16-17	17-18	18-19	19-20
Boys	8:23	8:14	8:0	8:10	8:4	7:52	7:23
Girls	8:23	7:58	7:31	7:30	7:33	7:22	6:54

The average sleeping hours of girls under 15 years are shorter than those of boys by 20 minutes. Girls above 15 years sleep on an average 30 minutes less than boys. The sleeping hours vary according to districts; the children in northern cities tend to sleep longer than the averages shown above; the children in central and southern cities tend to sleep less than the averages. As to the seasonal changes, the children sleep longest in winter, next longest in autumn, less in spring, least in summer. A definite relationship was found between sleeping hours and scholarship; bright children sleep longest, dull ones least.—*J. G. Yoshioka* (California).

1827. **Hetzer, H.** *Systematische Dauerbeobachtungen am Jugendlichen über den Verlauf der negativen Phase.* (Systematic continuous observations of the course of the negative phase in youth.) *Zsch. f. päd. Psychol.*, 1927, 28, 80–104.—The negative phase in the mental development of youth refers to certain aspects of behavior which have been observed to appear just before puberty. This phase has been observed in girls to occur most commonly between 11 years, 8 months, and 13 years of age. It is characterized by passivity, unrest, unresponsiveness to stimulation, desire for isolation, and decline in productivity. For example, diaries are not likely to be kept during this period, though they are kept before and after. The negative phase is preceded and followed by periods of heightened activity. The author's original contribution consists in the observation of a boy in order to discover evidence of a similar negative phase. This phenomenon is much less prominent in boys than in girls. She found in this case well-marked periods which she describes as follows: (1) The quiet period of energy accumulation, 13–5 to 13–7 years; (2) The period of consciousness of power, 13–7 to 14–6; (3) The negative phase, 14–6 to 15–1; (4) The period of boy friendship with a mentor. Detailed observation and supporting citations from other authors are given.—*F. N. Freeman* (Chicago).

1828. **Lehman, H. C., & Witty, P. A.** *The play behavior of fifty gifted children.* *J. Educ. Psychol.*, 1927, 18, 259–265.—Each of fifty gifted children (i.e. those with I.Q.'s of 140 and above) was paired with another child corresponding in sex and age but differing in I.Q. Data regarding their play interests were collected by using Lehman's Play Quiz, which lists 200 play activities

and asks the child to check those participated in during the past week; secondly, the child was to indicate which of these he had taken part in alone and which with others. It is thus possible to determine the social participation of each child. Both the control group and the gifted group participated equally in the number of plays and games. The gifted are more solitary in their ways, like reading better, and tend to avoid certain types of vigorous physical play.—*A. M. Jordan* (North Carolina).

1829. *Lehman, H. C., & Witty, P. A. Playing school—a compensatory mechanism. Psychol. Rev.*, 1926, 33, 480-485.—Careful statistical study of white and negro children reveals that: (1) girls of both races play school much more commonly than boys; (2) negro children participate in this activity more frequently at all ages than white children; (3) both groups play at it less frequently as chronological age increases. The writers suggest that negro children engage more in this activity than white children because it symbolizes knowledge, power, and prestige, which they are unable to achieve in the world of actuality; this even though negro children do not do so well in school as white. This form of make-believe play may be a compensatory activity. It is suggested that the reason for girls playing school more than boys is to be found in the fact that girls' play does not extend over so wide a geographical radius as boys' play.—*H. Helson* (Kansas).

1830. *Lehman, H. C., & Witty, P. A. The present status of the tendency to collect and hoard. Psychol. Rev.*, 1927, 34, 48-56.—Clear evidence of less marked interest in collecting and hoarding among present-day children than was reported a few decades ago makes it desirable to estimate their present importance in the development of the child. A statistical study of a large group of children shows there are no age-levels at which the interest in collecting and hoarding suddenly decreases or increases by spurts. Hardly more than 10% of the children questioned were actively making collections (as against 90% found by Burk in 1900) which shows that interest in collections varies from decade to decade. Older children become less interested in making collections. Collecting reaches its maximum intensity at ten years of age, which is the only point in this study in agreement with Burk's study made in 1900.—*H. Helson* (Kansas).

1831. *Nelles, F. C. Home rehabilitation. J. Delinq.*, 1926, 10, 537.—Announcement is made of the home rehabilitation program of the Whittier State School, of Whittier, California.—*H. L. Koch* (Texas).

1832. *Rosenburg, S. L. M. Child delinquency. J. Delinq.*, 1926, 10, 535-536.—The frequent concomitance of influenza and epidemic encephalitis is mentioned, and a causal relationship is suggested between encephalitis and conduct disorders in children.—*H. L. Koch* (Texas).

1833. *Siegvall, H. Undersökningar rörande det psykiska utvecklings förloppet hos gossar och flickor under skolåldern.* (Investigations on the mental development of boys and girls of school-age.) *Arkiv f. Psykol. o. Ped.*, 1927, 6, 63-90.—Using the scale of tests devised and standardized by Anderberg and his co-workers for Swedish boys of 7.5 to 10.5 years of age (see the same journal, Anderberg, Vol. 2, 1923 and Vol. 3, 1924; also Lahne in Vol. 5, 1926) the writer from his own measurements of girls of the ages 7.5 to 12.5 at the public schools of Lund and Malmö, 1925, arrives at the conclusion that the Anderberg test may also be used for girls. On the basis of detailed investigations of more extensive material (425 boys and 420 girls) Siegvall further concludes that the Anderberg test-scale as a whole satisfies all the requirements which might be asked for in regard to a scale of general intelligence tests. Tables, graphs, and references are included in the text.—*M. L. Reymert* (Wittenberg).

1834. *Sullivan, E. B. Preliminary report of home rehabilitation. J. De-*

*ling.*, 1926, 10, 538-542.—The author briefly describes the objectives of the home rehabilitation work of the Whittier State School at Whittier, California, as well as the techniques used and the results of 3 months of activity in this line.—*H. L. Koch* (Texas).

1835. **Sundell, C.** *Mätningar och vägningar februari-mars 1927 i Katarina södra folkskola i Stockholm.* (Physical measurements February and March, 1927, in the Katarina Southern Grade-School, Stockholm.) *Svenska Läkartidn.*, 1927, 24, 595-600.—Height and weight measurements of 1976 children of ages 7 to 14. Graphs illustrating annual increments in height and weight as compared with curves from measurements of (1) the same school in 1921, (2) all public school children in Stockholm in 1914, and (3) Adolph Fredrik School in 1927 are given. Several deviations from the results of Key in 1880 are noted.—*M. L. Reymert* (Wittenberg).

1836. **Woodrow, H., & Bemmels, V.** *Overstatement as a test of general character in pre-school children.* *J. Educ. Psychol.*, 1927, 18, 239-246.—An application is made of tests of overstatement to pre-school children. Estimates by competent teachers were made of the "goodness" of general character. The reliability of these ratings approached .70. Scores were obtained in the test of overstatement by asking children whether they could perform a list of tasks. It was then determined by actual performance whether they could carry out what they had asserted they could. A child's score was obtained by dividing the number of questions answered in the affirmative by the number actually performed. The score thus obtained was correlated with teachers' estimates of "goodness" of general character. The coefficients ranged from .36 to .62. When intelligence was made constant these coefficients were still somewhat above .40. It seems then, from the data that the overstatement test is a good indication of general character.—*A. M. Jordan* (North Carolina).

[See also abstracts 1732, 1768, 1793, 1803, 1807, 1851, 1856.]

## EDUCATIONAL PSYCHOLOGY

1837. **Butterfield, E. W.** *Adventures in public education.* *School & Soc.*, 1927, 25, 583-592.—After giving a brief historical survey of educational progress in the United States, the author's answer to the question, "Who shall go to college?" is: all who have the desire and aptitude for further acquisition of either knowledge or skill.—*H. L. Koch* (Texas).

1838. **Cousens, J. A.** *Who should go to college?* *School & Soc.*, 1927, 25, 613-617.—The answer offered to the question propounded is: "any boy or girl who by graduation from the secondary school in the upper half of his class indicates that his intelligence is above the average and who by comprehensive examination in mathematics, English, and history demonstrates his possession of the essential tools for higher education." A brief is presented for the junior college or any similar formal division within the college.—*H. L. Koch* (Texas).

1839. **Crane, E.** *The results of some psychological tests at Bryn Mawr College.* *School & Soc.*, 1927, 25, 640-644.—Correlations between the Thurstone Psychological Test or Thorndike Test scores and measures of scholastic success in terms of honor points are given for the various classes at Bryn Mawr for each year since 1920. Although most of the correlations are below .35, the psychological tests are defended as tools for predicting scholarship by a discussion of the position in the honor-point series of those students whose test scores fell in the highest or lowest quartile and decile. A combination of entrance examination and psychological test is alleged to have a greater prognostic value as far as scholastic success is concerned than does either alone.—*H. L. Koch* (Texas).

1840. **Cubberley, E. P.** *State school administration: a text book of principles.* Boston: Houghton Mifflin, 1927. Pp. xx + 773. \$3.75.—A comprehensive development and statement of principles, with descriptions of what states are now doing only to the extent that such descriptive materials illustrate stages in progress or desirable lines of effort or action. From these principles which control development, the author derives the direction of the probable future progress of state school administration. An abundance of historical and current factual material is distributed among the topics, presenting both the data from which the principles are deduced and a sense of the dynamic character of the principles in action. Sources are fully documented. Chapters are provided with questions for discussion, problems, topics for investigation, and selected, briefly annotated lists of references. There are seven divisions in the book: American federal and state policy, including an historical account of beginnings in state education, and national points of view and aids for education; state administrative organization, considering the units and forms for local school control, the rural school problem and the fundamental state problems of organization and administration; The scope of the school system, including extension education and vocational education and guidance as well as the older, established phases; Financing the school system, dealing with funds, taxation, apportionments, subsidies and federal aid; Material environment and equipment, relative to the control of buildings, health sanitation, text books and supplies; The state and the teacher, with chapters on training of teachers, certification, and appointment, tenure, pay and pensions; and the Oversight of the state, dealing with the state's responsibility for aid to the child, the problems of private and denominational schools, endowments, "foundations" and other non-state educational agencies. The book brings together for organized and systematic study the materials and principles for state school administration in a measure comparable to what has been available for some time in city school administration. Many of the issues treated are those which hold serious consequences for education—legislation, personnel and control of state departments or state boards of education, financial support, the training of teachers, adult education, and other questions vitally important in educational progress. The author urges the desirability of the study of the state educational system of each state by its teachers and its teachers' association, and of the exercise by teachers of their responsibility for educating the press and the public to an intelligent interest in educational problems and a wholesome attitude toward solutions that are desirable for progress. The book is so organized that it may serve as a basis and guide to such studies for any of the respective states.—*F. G. Bonser* (Columbia).

1841. **Dillard, J. H.** *Examinations.* *School & Soc.*, 1927, 25, 544-545.—A refutation is attempted for such objections to examinations as: they promote cramming; they stimulate only the memory; they test merely information, not ability to solve problems.—*H. L. Koch* (Texas).

1842. **Distad, H. W.** *A study of the reading performance of pupils under different conditions on different types of materials.* *J. Educ. Psychol.*, 1927, 18, 247-258.—Undirected reading, reading to find the answer to specific questions, reading to find the answer to a general problem, and reading to find the answers to questions raised by the group, were the four methods tried with four different types of material. These were: geographical, nature, narrative, and poetry. The subjects were ten classes of Grade VIa of seven elementary schools of Minneapolis. The groups were nicely equated and each one compared with the others. In 10 out of 12 comparisons the three other methods surpassed undirected reading in immediate recall. Reading to find answers, however, took a longer time. There was a tendency for raised questions and problem procedures to exceed the specific questions procedure in immediate recall.—*A. M. Jordan* (North Carolina).



1843. **Farrand, W.** The determination of fitness for college. *School & Soc.*, 1927, 25, 592-596.—The prognostic value for scholastic success of secondary-school records, College Entrance Examination Board examinations, and scholastic aptitude tests are briefly considered.—*H. L. Koch* (Texas).

1844. **Franz, S. I.** Student personnel problems. *J. Delinq.*, 1926, 10, 519-524.—It is maintained that it is the responsibility of the college to develop in its students adequate emotional and social as well as intellectual adjustments. Such a responsibility can be met successfully only if the whole institution sees its problem, attacks it systematically, and coöperates in its solution. Physical defects, attitudes of self-pity, over-confidence, and inferiority, parental misunderstanding, excessive social demands, and lack of satisfying social contacts are mentioned among the common and controllable factors active in student maladjustment.—*H. L. Koch* (Texas).

1845. **Gates, A. I.** Studies of phonetic training in beginning reading. *J. Educ. Psychol.*, 1927, 18, 217-226.—Two experiments using six groups of children from both public and private schools were performed to discover if possible the relative advantages of using a phonetic and a non-phonetic method in learning to read. The non-phonetic method consisted of comprehension exercises arranged to accompany two primers, the Bolenius and the Elson. Great care was taken to prevent these pupils from getting any phonetic drill. The non-phonetic method proved better in the majority of cases. The children thus trained comprehended more accurately the meanings of paragraphs, pronounced better new combinations of familiar word units, and perceived a larger number of words. Implications of the results are discussed.—*A. M. Jordan* (North Carolina).

1846. **Hayes, G. L.** Adjusting education to the abilities and needs of students at the University of Akron. *School & Soc.*, 1927, 25, 606.—A revision of policy, whereby, instead of dropping without further investigation students who fail a certain number of hours, the load is readjusted after failure in accordance with "psychological and basic tests" administered upon matriculation.—*R. R. Willoughby* (Clark).

1847. **Horn, E.** A basic writing vocabulary; 10,000 words most commonly used in writing. *Univ. Iowa Monog.: Monog. Educ.*, 1926, No. 4. Pp. 225.—"This monograph has four purposes: first, to make available a list of the 10,000 words most often used in the writing done in the United States outside the school; second, to give a summary and a critical evaluation of the various investigations which were utilized in determining this list of words; third, to discuss the most important problems and techniques involved in this type of vocabulary research; and fourth, to show how this list of words may be used not only for practical but also for scientific purposes." Business correspondence, personal correspondence, letters by literary persons, letters of application and recommendation, letters published in newspapers and magazines, minutes, resolutions, committee reports, excuses written to teachers by parents, and letters of a single individual were analyzed for vocabulary. The contribution of the word list to the improvement of instruction in spelling is discussed.—*B. Wellman* (Iowa).

1848. **Lancelot, W. H.** Can we teach ideals? *School & Soc.*, 1927, 25, 517-519.—Interest is the ground in which an ideal is sown; but public self-commitment to the ideal, opportunity to apply it to concrete situations, intellectual conviction in regard to its worth, and proper emotional conditionings are necessary to its development and strengthening. On the basis of this analysis a program for teaching ideals is submitted.—*H. L. Koch* (Texas).

1849. **Lowell, A. L.** The college student. *School & Soc.*, 1927, 25, 617-621.—The beliefs are expressed that few who are desirous of entering college are actually turned away; that what a person does in college is not an absolute

measure of his fitness to get a college education; that the motive in going to college is not only education; and that each youth, properly coached in regard to the momentousness of his decision as well as the real significance of college, should be given the opportunity to decide whether or not he will cast his lot with collegians.—*H. L. Koch* (Texas).

1850. **MacDonald, M. E.** *The I.Q. and democracy.* *School & Soc.*, 1927, 25, 631-634.—The classification of pupils in accordance with their I.Q.'s is criticized on the basis of the undemocratic nature of any such procedure and the fallibility of the modern intelligence test.—*H. L. Koch* (Texas).

1851. **Metzner, A. B., & Berry, C. S.** *Size of class for mentally retarded children.* *Tr. School Bull.*, 1925, 23, 241-251.—Four experimental groups and one control group were formed to determine, if possible, the optimum size of the special class for mentally retarded pupils under thirteen and one-half years of age. The period of the experiment was one hundred and eighty half days. The progress made in school subjects and in motor control was measured by Pressey's first grade reading test, the Stanford achievement test, the Ayres writing scale, and by a motor control test. The teachers' and principals' opinions were that twenty-five and thirty pupils are too many in one class. The results of the experiment show "that on the average the class with an enrollment of twenty-five pupils made as much progress as those with an enrollment of fifteen, twenty, or twenty-two pupils."—*E. M. Achilles* (Columbia).

1852. **Miller, H. W.** *Profits derived from segregating students on the basis of ability.* *Science*, 1927, 65, 427-429.—Segregation of students in classes in descriptive geometry proved profitable both to low students and to high students and harmful to none.—*G. J. Rich* (Institute for Juvenile Research).

1853. **Popenoe, P.** *The lockstep in the schools.* *J. Hered.*, 1927, 18, 63-65.—Reviews Kelley's recent publication, "The influence of nurture upon native differences." Also presents hitherto unpublished data upon the correlation coefficients between achievement quotient and intelligence quotient in 20 Los Angeles schools. These coefficients range from  $-.23$  to  $-.60$ . Author deplors the tendency to lockstep uniformity to be found in modern schools.—*B. S. Burks* (Stanford).

1854. **Pressey, S. L.** *A machine for automatic teaching of drill material.* *School & Soc.*, 1927, 25, 549-552.—A description is given of a drill apparatus which will omit a question from further presentation as soon as the learner has obtained the correct answer twice in succession. The apparatus is alleged to be meritorious in that it keeps the question to be mastered before the learner until he finds the correct answer, it informs him at once of the correctness of his response, and it prevents the overlearning of some parts of the lesson as well as the underlearning of others. Labor-saving devices in education are encouraged.—*H. L. Koch* (Texas).

1855. **Sullivan, E. B.** *The problem of adjustment of university students.* *J. Delinq.*, 1926, 10, 461-499.—Rule of thumb measures for determining those to be eliminated from a college campus are decried. As an example of the uniqueness of each problem case and as an argument for the necessity of individual treatment of each case, the pathetic autobiography is presented of a young Russian woman who was a student at an American university.—*H. L. Koch* (Texas).

1856. **Waugh, F. A.** *The bull session.* *School & Soc.*, 1927, 25, 609-610.—"This is the genuine education—the intense 'drawing out' of the student. Here, ten times more than in the best classroom, he summons all his resources, expresses himself in his native strength and character and takes his criticism. . . . The bull session habitually considers topics of real solidity. . . . One shudders to think how instantaneously the system would be ruined if the pedagogues ever laid hands on it . . . the most efficient educational process to be found in the modern

university." A charmingly deflected bit of etymology is appended.—*R. R. Willoughby* (Clark).

1857. **Weinland, J. D.** A note on the right-wrong examination. *J. Educ. Psychol.*, 1927, 18, 266-267.—By a careful study of the results of an examination conducted by the method of right and wrong the instructor may discover errors in his own teaching, points where the text is not clear, and general weak spots in the knowledge of the pupils.—*A. M. Jordan* (North Carolina).

1858. **Whitman, A. D.** The selective value of the examinations of the College Entrance Examination Board. *School & Soc.*, 1927, 25, 522-525.—Using data from 4000 students in 17 colleges who took the examinations of the College Entrance Examination Board in 1918-1921 and who stayed in college at least one year, the author computed the correlations between entrance-examination scores in specific subjects and freshman-year grades in college in these same subjects. Correlations between college-freshman and high-school marks in specific subjects were also computed. The average correlation in the former series was .29, the range being —.02 to .73; the latter series showed an average of .40. The comprehensive examinations devised by the Board gave higher correlations with college marks than did the old plan examinations and in some subjects higher than did even high-school grades, though, generally, secondary-school marks were the best criterion of ability to do college work. The desirability of using the new type of objective examination is suggested. These, according to the results of other examiners, have a greater reliability than the type of examination, comprehensive or otherwise, used by the College Entrance Examination Board, as well as a somewhat greater prognostic value.—*H. L. Koch* (Texas).

[See also abstracts 1672, 1679, 1725, 1741, 1788, 1806, 1809, 1863.]

## BIOMETRY AND STATISTICS

1859. **Kornhauser, A. W.** Reliability of average ratings. *J. Person. Res.*, 1926, 5, 309-317.—Two groups of college students were rated by varying numbers of instructors, using a graphic rating scale for seven traits. The reliability of these ratings was determined in two ways: (1) The clearness of differentiation of average ratings was observed. The spread of average ratings was greater in most traits for Group A, consisting of 18 seniors, than for Group B, consisting of 50 students of all classes. The author concludes that the exceptionally high and exceptionally low students appear to be distinguished with a considerable degree of reliability, but the reliability of differences among the mass of average students is not great. (2) Averages of sets of three ratings (chosen at random) on each student were compared with averages of other sets of three ratings also chosen at random. For Group A the average correlation of set 1 with set 2 was 0.67, ranging from 0.34 for initiative to 0.68 for industry. Two other sets of three ratings chosen in the same way gave substantially the same results. For Group B this process gave coefficients of lower value, averaging in the forties. This was probably due to the smaller range of ratings. The author also correlated sets of average ratings, varying the number of ratings entering into the average. He concludes that the reliability of average ratings increases steadily with an increase in the number of separate ratings entering into the averages, up to four, and beyond four no further change in reliability occurs.—(From *J. Person. Res.*)

1860. **Spearman, C.** The abilities of man. New York: Macmillan, 1927. Pp. 415 + xxiii. \$4.50.—The first comprehensive synthesis and general implications of the two-factor theory of cognitive abilities, first enunciated in 1904. The

theory states that when the "tetrad difference" (between the cross-products in a rectangle of coefficients between four abilities) does not depart significantly (as judged in the light of its probable error) from zero, these abilities may be separated (mathematical proof is presented in the appendix) into a general factor  $g$ , common to all the abilities, and special factors  $s$ , appertaining to each separately. After several historical and critical chapters opposing the general-ability ("monarchic"), faculty or type ("oligarchic"), and average or general-level ("anarchic") concepts of cognition, the sequelae of the tetrad equation are explored. It is shown that it is satisfied with great accuracy by the great majority of mental-test abilities, but not by physical measurements, etc.; and that in the cases where agreement is not close, due to overlapping  $s$ 's ("group factors") further inquiry brings to light other general factors besides  $g$ , such as  $c$ , the obverse of mental inertia or perseveration, "oscillation," apparently a fatigue function, and  $w$ , a semi-temperamental function akin to volition. The  $s$ 's which remain are believed to be related to the particular sensory or motor apparatus involved—the "engines" in which  $g$ , the quantity of "energy" (of which the inertia and oscillation are also attributes) is expressed. The "engineer" is a requirement of the system to which the conative  $w$  concept seems to be fitted. Several chapters are included which show the applicability of the two-factor concept to the elements of the author's analysis of cognition, such as education, clearness and speed, span, etc.; retentivity, however, was found to be independent of  $g$ . There are also chapters on such matters as age, heredity and sex, and mind and body.—*R. R. Willoughby (Clark)*.

1861. **Yule, G. U.** *An introduction to the theory of statistics.* (8th ed.) London: Griffin, 1927. Pp. xv + 422. 2 s. 6 d.—The new material in the present edition of this famous work is slight in amount, consisting chiefly in two notes supplementary to the chapter (6) on the frequency-distribution; one deals with the tendency of observations read from a scale to cluster around values psychologically determined; the other presents a table of the species per genus of the Chrysomelid beetles, these data showing a marked J-shaped distribution, a phenomenon said to be general in biological groups. The references have been brought up to date, and the index revised. A Czech translation by Novák and Mráz is announced, published by the State Statistical Office, 1926.—*R. R. Willoughby (Clark)*.

#### MENTAL TESTS

1862. **Kornhauser, A. W.** *A comparison of raters.* *J. Person. Res.*, 1927, 5, 338-344.—College instructors who rated two groups of students with a graphic rating scale for seven traits are compared with regard to their rating tendencies or standards, and their agreement in relative standing assigned to individual students. Wide divergence is found in averages of ratings of instructors. Correlations of ratings made by pairs of raters show considerable divergence, the average correlation being 0.41 for one group of students and 0.38 for the other. Correlations between ratings by the same instructor at different times average 0.60.—(From *J. Pers. Res.*)

1863. **Kornhauser, A. W.** *A comparison of ratings on different traits.* *J. Person. Res.*, 1927, 5, 440-446.—Two groups of students were rated by their instructors with a graphic rating scale for seven traits: intelligence, industry, accuracy, coöperativeness, initiative, moral trustworthiness, and leadership ability. A comparison of distributions of ratings in the several traits reveals marked differences from trait to trait, which must be taken into account in interpreting individual ratings. Figures are also presented to show the relative standing of the traits with respect to the reliability of ratings in those traits and with respect to



the factors which determine that reliability. The figures cover such variables as the following for each trait: excellence of spread of ratings, disagreement in average ratings by instructors, disagreement on individual students, correlations of ratings of pairs of instructors, etc. Everything considered, intelligence and industry appear to be the best judged of the seven traits, while initiative, cooperativeness, and leadership ability are the most poorly rated. The traits are all found to be highly intercorrelated. (The coefficients of correlation range from 0.45 to 0.84.) The ratings also agree closely with average scholastic marks (coefficients of 0.58 to 0.83). These correlation figures suggest that most of the traits could be omitted without entailing much loss of information concerning the general run of students. But even where the general agreement is very close between two traits, there are always a few individual students concerning whom the separate ratings tell far more than would any one of the estimates taken alone.—(From *J. Person. Res.*)

1864. **MacQuarrie, T. W.** **A mechanical ability test.** *J. Person. Res.*, 1927, 5, 329-337.—The author describes a paper and pencil performance test for mechanical ability. The test consists of seven parts printed together in a booklet. The reliabilities of the separate parts are as follows: tracing 0.80, tapping 0.85, dotting 0.74, copying 0.86, location 0.72, blocks 0.80, and pursuit 0.76. The reliability of the whole test was found to be over 0.90 with each of three groups of subjects, numbering 35, 80, and 250 cases. The test measures something other than mental alertness, since it correlated less than 0.20 with a group mental test. When test scores were compared with teacher ratings on mechanical ability, the correlation was in no case over 0.48. But different results were obtained when test scores were compared with ratings on mechanical work the students turned out. In two such studies in which most of the raters did not know who did the work they were rating, correlations of 0.81 were found, while in another study the correlation was 0.32.—(From *J. Person. Res.*)

1865. **Sheldon, W. H.** **Morphologic types and mental ability.** *J. Person. Res.*, 1927, 5, 447-451.—In 1921 the late Dr. Naccarati made a comparison of intelligence with morphological type. He differentiated three morphological types, the macrosplanchnics, whose trunks are relatively large compared with the length of their limbs, the microsplanchnics, in whom the opposite condition prevails, and the normosplanchnics. This morphological characteristic was put into the form of an index from a series of bodily measurements, and with 75 Columbia University students as subjects, correlated 0.36 with the Thorndike Entrance Examination, the microsplanchnics scoring the highest in the examination. Dr. Sheldon duplicated Naccarati's investigation, using as subjects a group of 450 students entering the University of Chicago in 1924. The morphological index correlated 0.136 with standing on the psychological examination published by the American Council on Education, and 0.114 with grades for the fall quarter of 1924. While making the physical measurements the examiner estimated the student's intelligence. The estimate correlated 0.206 with grades, proving to be more valuable than the morphological index as a predictor of scholarship.—(From *J. Person. Res.*)

1866. **Thorndike, E. L., Bregman, E. O., Cobb, M. V., Woodyard, E., & others.** **The measurement of intelligence.** New York: Teachers College, Columbia University, 1926. Pp. xxvi + 616. \$4.00.—This volume presents the results of three years of investigation dealing with the question of the nature and meaning of the measurement of a defined segment of intelligence. The following topics are discussed: the present status of the measurement of intelligence, the measurement of difficulty, the levels of intellect, the form of distribution of intellect in man, a scale for measuring altitude of intellect, the absolute zero of intellectual difficulty; the problems of altitude, width, area and speed; the mean-

ing of scores in standard examinations; the nature of intellect; the measurement of original and acquired intellectual ability; and changes in altitude and area of intellect with age. Six appendices summarize much of the data upon which the detailed conclusions rest. A brief list of references is given. The defined segment of intellect with which the authors work is represented in, and defined by, a selection of tasks involving completions, arithmetical problems, vocabulary, and directions. This intellect is termed CAVD. No effort is made to separate the influences of training and heredity upon the scores in the test. Intellect CAVD correlates about as highly with other standard tests as the self-correlations permit. "It is so nearly the same thing as they that what we learn about it will have an application nearly or quite as broad as present practice is." Intellect CAVD is essentially the same from its lowest to its highest levels, and there is a very close correlation between degree of difficulty and range at any level. "Difficulty CAVD is not the same throughout in the sense that any one unit of it can replace or be interchangeable with any other unit of it, in the way in which one inch or one cent can replace any other." The numbers representing difficulty, however, are roughly comparable to those used to represent temperatures where  $300^{\circ}$  divided by 10 gives  $30^{\circ}$  in a useful sense. Levels of difficulty for CAVD are represented in tests A-Q which can be given numerical values from an approximate intellectual absolute zero. This absolute zero was sought by an analysis of the judgments passed by trained psychologists upon a series of tests. Situations of approximately zero intellectual difficulty are: "Responds to his best and kindest friend, for example, mother or nurse, differently from his response to strangers." "Will not try to pull off his own fingers or toes." Facts are presented to substantiate the hypothesis that "the higher forms of intellectual operation are identical with mere association or connection forming, depending upon the same sort of physiological connections but requiring *many more of them*." The curve of age with CAVD is parabolic from birth to 20 years. However, "it is conceivable and probable that the person who ceases to improve in altitude CAVD may continue to improve in altitude Bu, Ch, Ho, So. (Business, Child Management, Household Management, and Social Arrangement.)" Certain "specialized abilities may begin their rapid rise in altitude at an age when CAVD altitude has almost ceased to gain." "An intellectual task is one, success in which depends upon all of intellect and nothing but intellect. Intellect is definable by a series of tasks, and we have so defined one variety of it, Intellect CAVD . . . A CAVD intellectual task is, then, one success at which depends upon all of Intellect CAVD and nothing but Intellect CAVD. . . . CAVD intellect is nearly or quite homogeneous in the sense that the ability which determines success at any one level of difficulty is, to a close approximation, simply a larger or smaller amount of the same ability that determines success at any other level of difficulty." The authors state that the principles and techniques which they have developed are to a large extent suited to the measurement of a large proportion of human abilities, including such diverse ones as hearing, general motor skill, ability in spelling, and ability in salesmanship.—*W. S. Hunter (Clark)*.

[See also abstracts 1738, 1766, 1807, 1820, 1821, 1825, 1833, 1839, 1850, 1857, 1859, 1860.]

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